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TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1932

No. 128

WABASH VALLEY ELECTRIC COMPANY,
APPELLANT,

vs.

RALPH K. YOUNG, ~~FRANK T. SINGLETON~~, JOHN W. McARDLE, HOWELL ELLIS, ET AL., ETC.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF INDIANA

FILED JUNE 2, 1932

(36,825)

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[fol. 1] [Caption omitted]

[fol. 2]

IN UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF INDIANA, INDIANAPOLIS DIVISION

In Equity. No. 1178

WABASH VALLEY ELECTRIC COMPANY, Plaintiff,

vs.

FRANK T. SINGLETON, JOHN W. MCCARDLE, HOWELL ELLIS, Harvey Harmon, and Calvin F. McIntosh, as Members of the Public Service Commission of Indiana; James M. Ogden, as Attorney General of Indiana, and Harry G. Leslie, as Governor of Indiana, Defendants

BILL OF COMPLAINT—Filed Feb. 27, 1929

Wabash Valley Electric Company, plaintiff in the above entitled cause, complains of Frank T. Singleton, John W. McCardle, Howell Ellis, Harvey Harmon and Calvin F. McIntosh, as members of the Public Service Commission of Indiana, James M. Ogden, as Attorney General of Indiana, and Harry G. Leslie, as Governor of Indiana, defendants, and says:

I

Each of the defendants, Singleton, McCardle, Ellis, Harmon and McIntosh was on January 26, 1929, and at all times herein referred to, and is now, a member of the Public Service Commission of Indiana, and that said Public Service Commission of Indiana is a body created by the statutes of the State of Indiana charged with the duty of regulation and control under said statutes of all public utilities in the State of Indiana, and that among other duties of said Public Service Commission of Indiana and the members thereof, is the duty of approving and determining fair and reasonable tariffs, rates and charges for [fol. 3] the services of utilities in the State of Indiana.

Said Public Service Commission of Indiana will be hereinafter referred to as the Commission.

The defendant James M. Ogden is the Attorney General of the State of Indiana and under the laws of said State is charged with the duty of commencing and conducting suits and proceedings to enforce the orders of said Public Service Commission of Indiana and to recover and enforce fines and penalties imposed by the statutes of the State of Indiana for violation of orders of said Public Service Commission of Indiana.

The defendant, Harry G. Leslie, is Governor of the State of Indiana and is also charged with certain duties with reference to the enforcement of the orders of the Public Service Commission of Indiana.

Each and all of said defendants is officially a resident of Marion County, Indiana, and the defendant James M. Ogden is actually and legally, as well as officially, a resident of Marion County, Indiana.

II

The plaintiff is a corporation organized under the laws of the State of Indiana for the purpose, among other things, of manufacturing, buying, selling and distributing electricity for light, heat and power to cities and towns and the public in general in the State of Indiana as a public utility and was at all times herein referred to and is now engaged in said business under the supervision and subject to the regulation of the Public Service Commission of Indiana under indeterminate permits from said Public Service Commission of Indiana.

[fol. 4] III

This is a suit of a civil nature in equity and is brought for the purpose of enjoining the enforcement of a certain order of the Public Service Commission of Indiana made and approved January 26, 1929, prescribing the rates and charges to be made by plaintiff for its electric service rendered in the City of Martinsville, Indiana, all as hereinafter more particularly alleged, and arises under the Constitution and laws of the United States, in that the rates and charges prescribed in said order are confiscatory of plaintiff's property used and useful in furnishing electric

service to cities and towns and the public in general, and thereby plaintiff is deprived of its property without due process of law, and is denied the equal protection of the laws in violation of its rights under the Fourteenth Amendment to the Constitution of the United States.

The amount in controversy in this suit exceeds the sum of $5000.00, exclusive of interest and costs.

IV

Plaintiff owns and operates plants and properties located in Vigo, Warren, Fountain, Morgan, Tippecanoe, Parke, Putnam, Owen, Clay, Green and Sullivan counties, Indiana, utilized by it in the production, transmission and distribution of electricity and the sale thereof to cities and towns and the public in general in said counties. It owns and operates power plants in the cities of Martinsville, Spencer, Sullivan, and Clinton, Indiana, and furnishes electric service to said cities and to approximately fifty other cities, towns and communities in said counties above named, and it supplies electricity to numerous industrial plants and rural individual customers not located within the corporate limits of cities and towns. It buys electricity from the Indiana Electric Corporation which has a large [fol. 5] and modern generating plant in the coal fields on the Wabash River in close proximity to the territory served by plaintiff, but it does not sell to said Indiana Electric Corporation any current. It sells electricity to the Illinois Power & Light Company, Interstate Public Service Company, Northern Indiana Power Company, and Attica Electric Company and purchases electricity, from time to time, from said corporations, and also sells electricity to the cities of Covington, Veedersburg and other municipalities for resale by said municipalities over their own distribution systems to the inhabitants of said municipalities. It supplies approximately 18,000 individual customers with electricity scattered over the eleven counties hereinbefore named.

Its purchases and sales from and to said Illinois Power & Light Company, Interstate Public Service Company, Northern Indiana Power Company, and Attica Electric Company are under contracts and agreements on an interchange basis and said interconnections make available to

the communities and customers all the power plants, facilities and resources of the plaintiff, and also the power plants, facilities and resources of the connecting utilities for regular or emergency service, so that there may be as nearly as practical a continuous and uninterrupted supply of power for service to and development of the various communities and industries served by plaintiff within its territory, thus giving all the communities equal opportunities to attract industries and enjoy the benefits of as nearly perfect electric service as modern engineering methods and practices can give them.

In addition to its electric properties, plaintiff also owns and operates a few small gas and water plants not involved in the proceeding before the Commission herein referred to and not involved in this proceeding and all allegations [fols. 6-8] herein as to property, income, costs or otherwise apply to and include only plaintiff's electric property and business.

V

On March 16, 1927, seventeen citizens of the City of Martinsville, Indiana, electric patrons of plaintiff at Martinsville, filed with the Public Service Commission of Indiana their petition asking for a reduction of electric rates in Martinsville, Indiana. On said date, plaintiff had on file with the Public Service Commission of Indiana tariffs, schedules and rates for its service, which said tariffs, schedules and rates did not yield a net revenue in excess of a fair return upon the property of plaintiff used and useful in its electric service, but, notwithstanding said fact, plaintiff, while said petition was pending, filed a new schedule of rates and charges for Martinsville, which became effective July 1, 1927, which new rates and schedules reduced plaintiff's gross revenue in Martinsville during the following year in the sum of $11,469.00 below the revenue which it would have realized in the same business under the preceding rates. Thereafter from time to time hearings were held upon said petition and on January 26, 1929, the Public Service Commission of Indiana made and approved an order and fixed and designated therein schedules of rates and charges to be put into effect by plaintiff upon all billings for service rendered at Martinsville on and after February 1, 1929, which said schedules of rates and charges were as follows:

"Here appears the schedule of rates contained in the order of Jan. 26, 1929, attached hereto as Exhibit A".

[fol. 9] Thereafter on February 7, 1929, plaintiff filed with said Commission its petition for a rehearing of said cause, in which said order was entered, which said petition was overruled and rehearing denied by a supplemental order of said Commission in said cause made and approved February 15, 1929. A certified copy of said order of said Commission, dated January 26, 1929, is attached hereto, made a part hereof, marked Exhibit A; and a certified copy of said supplemental order of February 15, 1929, is attached hereto, made a part hereof, marked Exhibit B.

[fol. 10] VI

On said 26th day of January, 1929, the plaintiff owned property used and useful in the generation, transmission, distribution and sale of electricity of a value not less than $5,026,437.59, and in the year 1928 its gross revenue was $1,691,154.84, under rates and schedules then in force and effect, and its total operating expenses, including taxes and 4% depreciation, was $1,412,320.63, leaving a balance available for return on its electric property of $278,834.21, which sum is equivalent to a return of only 5.54% on the value of its used and useful property at the time, which said return is inadequate, unfair and unreasonable.

Effective with December 1928 billings, plaintiff filed with the Commission and put in force new tariffs and schedules of electric rates and charges for the cities of Clinton and Greencastle, Indiana, which are still in effect. Clinton is the largest city served by plaintiff, but prior to said change of rates, the electric rates effective there were higher than the rates at that time in effect in Martinsville. Prior to said change the electric rates at Greencastle had been the highest in the plaintiff's system for cities of its size and higher than rates then in effect at Martinsville. Said changes were made in order that the electric rates for said cities be not discriminatory, and said changes and new rates and charges were approved by the Commission. Had said new rates and charges at Clinton and Greencastle been in effect during the entire year 1928, plaintiff's gross revenue for said year would have been reduced in the sum of $32,-

001.70 by reason thereof, and had said rates and charges for Martinsville, fixed by said order complained of, been in [fols. 11 & 12] effect during the year 1928, plaintiff's gross revenue would have been further reduced by reason thereof in the sum of $14,566.33. Applying plaintiff's rates and charges in effect at the date of the order complained of and applying to Martinsville business the rates and charges therein prescribed, plaintiff's gross revenue in 1928 would have been $1,644,586.81, and its net revenue available for return would have been $232,266.18, which is equivalent to a return of only 4.62% on the value of its property used and useful in said service.

Said rates and charges prescribed and fixed as aforesaid by said Public Service Commission of Indiana are therefore confiscatory and take plaintiff's property without due process of law and violate plaintiff's rights under the Fourteenth Amendment to the Constitution of the United States.

* * * * * * *

[fol. 13] VIII

On January 26, 1929, and during the year 1928, the plaintiff's actual cost of all current delivered to gateways and sold to Northern Indiana Power Company and Attica Electric Company, including 4% depreciation and 8% return upon plaintiff's used and useful power system property (not [fol. 14] including any local property) was $184 per Kw. H., and the actual cost of all current delivered by it to its several distribution gateways (not including current sold to Northern Indiana Power Company and Attica Electric Company) including 4% depreciation and 8% return upon plaintiff's used and useful power system property was $.024996.

Therefore the order complained of, fixing a Martinsville gateway charge of only $.0172 per Kw. H., used in fixing and prescribing the rates and charges for Martinsville, is confiscatory and takes plaintiff's power system property without due process of law and violates plaintiff's rights under the Fourteenth Amendment to the Constitution of the United States.

IX

[fols. 15-17] On December 31, 1928, the fair value of the power system property used and useful in the general power

system of plaintiff (exclusive of so-called local property) was $3,360,999.16, and a fair return thereon is 8%, which would amount to $269,437.93; that on said December 31, 1928, the cost of reproduction new of plaintiff's depreciable power system property used and useful in its said business was $2,778,864.16; that a fair rate of depreciation thereon is 4%, which would amount to $111,433.57, or a total for depreciation and return of $380,871.50. During the year of 1928, plaintiff delivered 71,783,643 Kw. H., which at one-third cent per Kw. H., for depreciation and return upon power system property, would yield $239,278.81 to take care of $380,871.50, which is the fair and reasonable amount necessary for depreciation and return on said property.

* * * * * * *

[fol. 18] XII

The electricity purchased from and sold to the Illinois Power & Light Company and the Interstate Public Service Company by plaintiff at all times here involved has been, and will continue to be, negligible, but plaintiff has purchased at all times here involved, and will continue to purchase, electricity from the Indiana Electric Corporation in very large quantities and has paid and is paying therefor at the rate of one cent per Kw. H. In the period ending July 31, 1927, plaintiff's total deliveries of electricity amounted to 51,457,770 Kw. H., of which 21,335,114 Kw. H. were sold to the Attica Electric Company and the Northern Indiana Power Company (16,538,374 Kw. H. to Northern Indiana Power Company and 4,796,740 Kw. H. to Attica Electric Company) at a price of 1¼ cent per Kw. H., and the remainder of 30,122,656 Kw. H. were delivered to the numerous so-called "gateways" of plaintiff for distribution and sale to consumers in local areas, and of said electricity delivered to gateways of plaintiff only 2,180,124 [fol. 19] Kw. H. were delivered to the Martinsville gateway for Martinsville consumers. This was the period and these were the Kw. H. figures which the Commission used and considered in determining the gateway price of electricity delivered to the Martinsville gateway by plaintiff. In the calendar year 1928, the corresponding figures were as follows:

Total Kw. H. sold and delivered by plaintiff		71,783,643
Total Kw. H. sold by plaintiff to Northern Indiana Power Company and Attica Electric Company:		
Northern Indiana Power Company	31,891,500	
Attica Electric Company	5,795,720	
		37,687,220
Total Kw. H. delivered to so-called gateways		34,096,423
Total Kw. H. delivered to Martinsville gateway		2,511,125

The electricity purchased from the Indiana Electric Corporation is delivered to the plaintiff at 66,000 volts at Clinton, Indiana, and plaintiff has a 66,000 volt transmission line extending from Clinton, Indiana, via a point near Attica, Indiana, to a point near Lafayette, Indiana, at which points it makes delivery of electricity sold to the Attica Electric Company and the Northern Indiana Power Company, respectively, at 66,000 volts, whereas electricity delivered by plaintiff to its various distribution gateways for service to its own customers passes over and through interconnecting transmission lines, transformers and substations and is delivered to said gateways at reduced voltage. Transmission and line losses upon the electricity transmitted from Clinton to points of delivery to said Attica Electric Company and Northern Indiana Power Company amount to only about 1½%, whereas, the transmission and line losses on the system as a whole amount to 10.7%. Said 66,000 volt transmission line from Clinton to points of delivery to the Attica Electric Company and Northern Indiana Power Company is an integral part of its general power transmission system and has always been and will continue to be used and useful and required [fol. 20] in its electric service through numerous gateways to its local distribution areas. If all sales of energy to the Attica Electric Company and to the Northern Indiana Power Company were discontinued, all of the general power distribution system of the plaintiff including said 66,000 volt transmission line used in making deliveries of electricity to the Attica Electric Company and Northern Indiana Power Company, as aforesaid, would continue in

existence and would be required by the plaintiff for its local customers. The sale of energy to the Attica Electric Company and to the Northern Indiana Power Company at 1¼ cent per Kw.H. involves no additional expense whatever to the plaintiff except the one cent per Kw.H. which it pays for the energy thus sold. The price of 1¼ cent per Kw.H. charged by the plaintiff to the Attica Electric Company and to the Northern Indiana Power Company is essentially a competitive one, and represents the highest practicable amount which those companies can or will pay for energy in such quantities. The utilization by plaintiff of its existing power transmission system for earning additional net revenue, at no additional expense, operates to lighten the burden which would otherwise fall upon plaintiff's local customers of carrying the cost of maintaining its general power transmission system. It represents an activity on the part of plaintiff which it is under no obligation to undertake and which, when undertaken and discharged, is wholly for the benefit of its other customers. Under these circumstances the price of 1¼ cent charged by plaintiff to the Attica Electric Company and the Northern Indiana Power Company for such energy sold to them is reasonable, and the energy purchased by plaintiff and resold to them should be segregated from plaintiff's other operations except to the extent that the profit made by plaintiff on such transactions constitutes a credit, for the benefit of plaintiff's other consumers, to the expenses otherwise incurred by plaintiff in the ownership and maintenance of its general power system.

[fol. 21] Said sales to said Attica Electric Company and Northern Indiana Power Company have been in very much larger quantities than to any of the numerous gateways to direct distribution areas, and are made pursuant to interchange agreements, whereby electricity is sold and will be sold to plaintiff by said Attica Electric Company and Northern Indiana Power Company as hereinbefore alleged at said price of 1¼ cent per Kw.H. and thereby plaintiff has available to it electricity and service from said Attica Electric Company and Northern Indiana Power Company whenever and for whatever reasons same is required. By reason of the facts aforesaid, the sale price of 1¼ cent to the Attica Electric Company and the Northern Indiana Power Company of electricity, purchased from the Indiana

Electric Corporation at one cent, is a fair and reasonable charge for said electricity to said Attica Electric Company and Northern Indiana Power Company.

Plaintiff believes and alleges that hereafter the sales by it of electricity to the Northern Indiana Power Company will be greatly reduced and will be negligible because said Northern Indiana Power Company has within the last few months made interconnections with other large sources of power and plaintiff believes and alleges that hereafter said Northern Indiana Power Company will obtain from said sources a large part of the electricity that it has heretofore obtained from plaintiff.

By reason of the facts aforesaid, it is unfair and unreasonable to fix a gateway price based upon the average cost of all electricity sold and delivered by plaintiff, which was used by the Commission as a basis in fixing said price. In order to determine a fair gateway price, sales to said Attica Electric Company and Northern Indiana Power Company should be eliminated from revenue and power system cost [fol. 22] should be credited with all revenue therefrom, and upon said basis the average cost per Kw.H. of all electricity sold by plaintiff in the year 1928, except that sold to the Northern Indiana Power Company and the Attica Electric Company, including 4% depreciation and 8% return upon general power property only (excluding all property inside the several gateways and used locally for local distribution) was $.024996.

XIII

Said Commission determined the gateway cost of the total amount of the electricity sold by plaintiff during the year ended July 31, 1927, to be $.0172, and used said 1927 gateway cost as the basis for rates and charges ordered for Martinsville in 1929, and said $.0172 included only one-third cent per Kw.H. for return and nothing for depreciation upon general power property, whereas, in truth and in fact, the average cost of all electricity delivered and sold by plaintiff, including provision for 4% depreciation and 8% return upon general power system property during said period, was $.021, and for the calendar year 1928 the average cost to plaintiff of all electricity delivered and sold by it, including provision for 4% depreciation and 8% return upon used and useful general power system property, was

$.0184 per Kw.H. For the period of twelve months ending July 31, 1927, the average cost of all electricity sold by plaintiff, excluding sales to said Northern Indiana Power Company and said Attica Electric Company and including provision for 4% depreciation and 8% return upon general power system property was $.0270797, and for the calendar year of 1928, the corresponding figure was $.024996.

XIV

On December 31, 1928, and at the date of the order of the Public Service Commission fixing rates and charges for [fol. 23] service for plaintiff in the City of Martinsville herein complained of, the property of plaintiff used and useful locally and exclusively in said City of Martinsville for its business there was of a fair and reasonable value of not less than $141,520.38. For the calendar year of 1928, plaintiff sold and delivered to its Martinsville customers affected by said order 2,511,125 Kw. H. of electricity, which said services, based upon an average gateway cost of $.024996 and including a 4% depreciation charge on used and useful local property of plaintiff, cost plaintiff $96,680.79, and produced a revenue of only $95,105.47, leaving an operating deficit of $1,575.32 upon the rates then in force, and said revenue under the rates fixed and prescribed in said order would have been reduced in the sum of $14,566.33 and would have left an operating deficit, after application of the rates authorized in said order, of $16,141.65. If said electricity had been charged to Martinsville at a gateway price of $.0184, said rates and charges fixed by said order would have yielded only $421.73 for return upon Martinsville local property of plaintiff, and if said electricity had been charged against Martinsville at the gateway price of $.0172 fixed by said Commission and had said rates and charges fixed in said order been then in effect, the revenue would have been such as to yield only the sum of $3,435.08 as return upon the fair value of the property of plaintiff used and useful locally in the service of Martinsville, which is an inadequate return even upon the value of $87,000.00 fixed by said Commission in said order as the value of the property used and useful locally in Martinsville on November 30, 1927.

[fol. 24] Therefore plaintiff says that even according to the method used by said Commission in fixing said rates and

on the basis of the gateway price fixed by the Commission in said order and upon the basis of a fair return upon the Martinsville local property used and useful in said service, at the value found by the Commission, plus additions and betterments actually made by plaintiff after the date of the Commission's valuation, said rates and charges fixed by said Commission in said order complained of are inadequate, unfair and unreasonable and are confiscatory and take plaintiff's property without due process of law and violate plaintiff's rights under the Fourteenth Amendment to the Constitution of the United States.

XV

The rates and schedules of plaintiff in force in the City of Martinsville prior to January 26, 1929, will not yield plaintiff more than a reasonable return on the property of plaintiff used and useful in giving said service, and together with all the other rates and charges of plaintiff throughout the balance of the territory served by it, will yield plaintiff a return upon all of its property, used and useful in the service it renders throughout its territory, which is less than a fair and adequate return upon the fair value thereof. The rates and charges in the City of Martinsville prior to January 26, 1929, were lower than its rates and charges in any other city or town served by plaintiff except Clinton, notwithstanding the fact that said City of Martinsville is so situated that service to it is more difficult and more expensive than the average service of plaintiff to cities and towns throughout its territory, and notwithstanding the fact that the load factor in the City of Martinsville is much more unfavorable than the average load factor of the system of plaintiff as a whole. The City of Martinsville could not be [fol. 25] served from the generating plant now located in the said City, and if said City of Martinsville were served exclusively from an adequate isolated plant located in the City of Martinsville, the cost of service to the City of Martinsville would be substantially higher than under any calculation herein used.

XVI

Plaintiff has no adequate remedy at law.

XVII

Unless a temporary restraining order and a temporary injunction are granted herein, plaintiff will, on or about March 1, 1929, be compelled to bill its customers for all service rendered at Martinsville on and after February 1, 1929, upon the basis of the rates and charges fixed in said order complained of, and before a hearing for a temporary injunction herein and before a final hearing can be held herein substantial sum will be immediately and irreparably lost to plaintiff by reason of the reduced and inadequate rates and charges provided by said order.

Wherefore plaintiff prays

1. That a writ of subpœna issue from this Court directed to the defendants, and each of them, requiring them, and each of them, on a day certain therein named to appear before this Court and answer all and singular the matters herein averred, but not under oath, answer under oath being hereby expressly waived.

2. That a day be fixed for preliminary hearing on the question of a temporary injunction, and that upon such temporary hearing said defendants, and each of them, be temporarily enjoined and restrained, pending the final determi- [fol. 26] nation of this case, from enforcing or attempting to enforce the rates and charges fixed by said order complained of, and from interfering in any way with the enforcement and collection by plaintiff of the rates and charges established by plaintiff and in effect prior to said order of January 26, 1929.

3. That in order to prevent immediate and irreparable injury, loss and damage to plaintiff, as hereinabove set forth, a temporary restraining order be issued restraining the defendants, and each of them, and all other persons, as above prayed, until a day to be set by the Court and until the hearing and determination of said application herein for a temporary injunction.

4. That upon final hearing, said temporary injunction be made permanent and that said order of the Public Service Commission, complained of, be adjudged and decreed to be in violation of the Constitution of the United States and

null and void, and that said defendants, and each of them, be permanently enjoined from taking any steps or proceedings against the plaintiff, its directors, officers, agents and employees to enforce any penalty or other remedy for disregarding the rates and charges prescribed by said order.

5. And for such further relief as may be just and equitable in the premises.

Wabash Valley Electric Company, by L. B. Andrus, President. S. C. Kivett, Glenn Van Auken, Fesler, Elam & Young, Solicitors for Plaintiff. Glenn Van Auken, J. W. Fesler, Harvey J. Elam, Howard S. Young, of Counsel for Plaintiff.

[fol. 27] STATE OF INDIANA,
County of Marion, ss:

Lucius B. Andrus, being first duly sworn, says upon his oath that he is the President of the Wabash Valley Electric Company, plaintiff herein; that he has read the foregoing bill of complaint subscribed to by him and knows the contents thereof, and that the same is true of his own knowledge, except as to the exact figures therein representing values, revenue, costs, expenses, production, sales and deliveries of electricity; that said exact figures representing value are based upon inventories and appraisal made by Spooner & Merrill, plus cost of subsequent additions and betterments taken from the books and records of the Company by Louis B. Schiesz, Treasurer of the Company in charge of same; that affiant is informed by said Spooner & Merrill that said values in their inventories and appraisal are true and correct, and is informed by said Schiesz that the cost of subsequent additions and betterments added to said Spooner & Merrill appraisal are the true and exact cost thereof as disclosed by the books of the plaintiff; that affiant has been engaged directly and continuously for over twenty-five years in the construction, operation and development of electric utilities in Indiana and is acquainted with utility property values and costs and knows thoroughly and at first hand the property of the plaintiff; that based upon said appraisals of Spooner & Merrill and said figures from said Schiesz as to the cost of subsequent additions and betterments and upon his own knowledge and ex-

perience in the utility business, affiant believes and is of the opinion that the values stated in said bill of complaint are true and correct; affiant is informed by said Schiesz that the figures alleged in said complaint as to revenue, costs, expenses, production, sales and deliveries of electricity have been taken from the books and *and* records of [fol. 28] said Company and that they are true and correct, and affiant believes same to be true and correct.

L. B. Andrus.

Subscribed and sworn to before me this 26th day of February, 1929. My commission expires June 19, 1930. P. L. Burford, Notary Public. (Seal.)

[fol. 29] EXHIBIT "A" TO BILL OF COMPLAINT

STATE OF INDIANA:

PUBLIC SERV'CE COMMISSION OF INDIANA

No. 8894

In the Matter of the Petition of

JAP JONES et al. and CITY OF MARTINSVILLE, INDIANA, as Intervenor,

vs.

WABASH VALLEY ELECTRIC COMPANY

For Reduction of Electric Rates and Gas Rates in Martinsville, Indiana

FINAL ORDER—Approved January 26, 1929

Power System — Local Distribution Systems — Considered Separately.—The general power system and the general distribution system of an electric utility that serves several different cities, towns and communities should be considered separately from the local distribution systems and works located in said several cities, towns and communities in a rate case inaugurated by petition of patrons of one of said cities, towns and communities.

Depreciation Fund—Must Not Be Duplicated.—When fund for depreciation is provided by the terms of mortgage upon the property of a public utility and when such fund is shown to be adequate, additional allowance for depreciation can not be justified and should not be allowed.

Fair Value—No Single Class of Evidence Controls.—No single class evidence of value is controlling to the exclusion of other evidences of value in determining fair value.

Indiana Law—Right of Municipality to Petition.—The Indiana public utility law is founded upon the right of any ten patrons, any municipality, etc. to petition the Public Service Commission for adjustment of rates or service. Any practice that would obstruct this right would violate the spirit, if not the letter, of the law. The valuation of all of the utility's property, used in serving several towns, cities, etc. and including the utility property in such towns, cities, etc., would be such obstruction and would do violence to spirit of the public utility act.

[fol. 30] **New Construction—Operating Revenues Not Used for.**—Revenues paid by patrons, regardless of the form in which paid, can not be used lawfully for new construction as permanent investment.

Depreciation Fund—Temporary Investment in New Construction.—Temporary investment of depreciation fund in new construction is construed to mean a period of not more than twelve months.

Fair Value—$87,000.00, Including Intangibles.—Fair value of the property used and useful in Martinsville, including intangibles, is found to be $87,000.00 as of November 30, 1927.

Annual Revenues—Reduced $25,000.00.—Annual revenues, as compared with the revenues for the year ended July 31, 1927, will be reduced $25,000.00 per year.

Rates—Active Room Basis—Optional.—The Wabash Valley Electric Company is required to put in effect an optional rate schedule, based upon the active room basis, and to keep such optional rate in effect until further order of the Commission.

Appearances:

For Petitioners: Barnes & Johnson, by Fred B. Johnson, Indianapolis, Indiana; Ralph K. Lowder, City Attorney, Martinsville, Indiana; O. C. Toner, Martinsville, Indiana.

For Respondents: Fesler, Elam & Young, by J. W. Fesler, Indianapolis, Indiana; Glenn Van Auken, Indianapolis, Indiana; Bowers, Feightner & Bowers, by Fred H. Bowers, Huntington; S. C. Kivett, Martinsville, Indiana.

SINGLETON, Chairman; HARMON, Commissioner:

Seventeen citizens of the City of Martinsville, Indiana, patrons of the Wabash Valley Electric Company at Martinsville and vicinity in the use of electric current and gas, filed with the Public Service Commission, on March 16, 1927, their petition as follows:

"The following named patrons of the Wabash Valley Electric Company, of Martinsville, Indiana, hereby petition your Honorable Body for reduction of electric and gas rates in Martinsville, Indiana."

[fol. 31] The first date of hearing was set for June 20, 1927. Upon the plea by the utility that preparations for hearing could not be completed by that time, by agreement of the parties postponement of date was had to July 12, 1927, at Martinsville. In the meantime the petitioners and other citizens of Martinsville and the respondent utility conferred in an effort to agree upon rates. These conferences were without success.

On July 7, 1927, the utility offered for filing with this Commission a preliminary optional schedule of rates for electric service, said optional rate schedule being on the basis of active rooms and being usually referred to as the "active room basis" for electric rates. As a result of this preliminary optional rate schedule being filed, the majority of the petitioners agreed with the utility to further postponement of date of hearing from July 12, for the purpose of obtaining the experience afforded by this optional rate schedule.

On July 9, 1927, this Commission approved an order based upon the above agreement and fixing Tuesday, November 6, 1927, as the time to which such hearing should be postponed. Later it was found necessary to change the date to November 7, 1927, and this was done.

The order approved July 9, 1927, approved the filing of the active room, preliminary, optional schedule; denied

authority for respondent to put in effect certain rules filed with said schedule until such rules should be approved by this Commission; required the utility to report monthly consumers' data, setting forth the experience of the utility and its patrons with the rates provided in said active room schedule; required the utility to file an amended schedule applicable to power consumers and especially applicable to the demand charge for such consumers, and to provide a rate applicable to use of current by large users of light, such as sanitariums. In the approval of this order with the above provisions all members of the Commission concurred.

Consistent with the proceedings outlined above, hearing was called in the City Building at Martinsville, Indiana, at 10:00 o'clock A. M., November 7, 1927, all the parties being present and participating. Prior to such date respondent had filed a motion that petitioners be required to make petition more specific. Omitting caption and signatures, said motion was in words and figures, as follows:

"Comes now the Wabash Valley Electric Company, respondent in the above numbered cause, and moves the Commission to require petitioners to make their petition more specific herein in the following particulars and each of them, separately and severally, to-wit:

"1. That petitioners be required to state what rates, tolls, charges, schedules, joint rate or rates, in which petitioners are directly interested are in any respect unreason-
[fol. 32] able or unjustly discriminatory.

"2. That petitioners be required to state specifically what regulations, measurement, practices or act affecting or relating to the service are in any respect unreasonable, unsafe, insufficient or unjustly discriminatory.

"3. That petitioners be required to state specifically what service is inadequate or that can not be obtained.

"4. That petitioners be required to state specifically some grounds for a complaint as set out and authorized by the statute governing hearings before the Public Service Commission.

Memorandum

"It will be observed that the petition herein states no cause for a hearing as required by the statute. The peti-

tion purports to be by patrons with a general request that the Public Service Commission reduce gas and electric rates in Martinsville, Indiana. This does not raise any question of fact to be investigated. There is not a claim that the rates are too high; that they are unreasonable; or in any particular improper. The Commission, the utility, and the public are entitled to know just what issues are to be presented.

"We respectfully submit that the motion be sustained."

At the beginning of the proceedings this motion was discussed at considerable length and petitioners were required to file such amended petition. Amended petition was filed by petitioners in words and figures, as follows:

"Come now the petitioners and the City of Martinsville in said above entitled cause and by way of answer to respondent's motion to make the petition more specific, say:

"That the electrical rates, tolls, charges, schedules, joint rate or rates of the respondent charged its consumers in the City of Martinsville are unreasonable and excessive in that the rates produce a gross income or net revenue which provides more than an adequate return on the fair value of the property of respondent devoted to the use of the public in the City of Martinsville, Morgan County, Indiana."

Respondents filed their answer to such amended petition and this answer was debated at considerable length. The answer was as follows:

[fol. 33] "Comes now the respondent, Wabash Valley Electric Company, and an amended petition having been filed after 1:45 o'clock P. M. of Monday, November 7, 1927, now at 10:00 o'clock A. M. of Tuesday, November 8, 1927, reserving all exceptions and without waiving any right to have a reasonable time in which to file an answer to said amended petition and prepare for a hearing on said amended petition, and expressly asserting and claiming the right to further time in which to answer said amended petition and to file intervening or cross-petition by respondent or other interested parties; and specifically stating that it is impossible for respondent to fully and properly present by answer or otherwise at this time the rights of respondent and consumers other than the petitioners;

respondent in an effort to comply with the demand of the sitting Commissioners and hereby giving notice that further answers and pleading may be presented herein, tenders three separate paragraphs of answer to said amended petition herein and asks that the same be accepted by the Commission upon the conditions herein stated, which said paragraphs are as follows:

Paragraph I

"Respondent for answer to the amended petition herein denies each and every allegation in said amended petition contained.

Paragraph II

"The respondent, for a second paragraph of answer to the amended petition herein, alleges and says that the City of Martinsville and territory adjacent thereto is one of the component parts of the territory served by the Wabash Valley Electric Company and receives electrical energy from various sources of supply as now provided by said system as a whole, and has the use and benefit of property used and useful outside the corporate limits of the City of Martinsville, and respondent further says that the rates, tolls, charges and schedules for electrical service as charged in the City of Martinsville, Indiana, and now in effect, are not unreasonable or excessive.

"Wherefore respondent asks that the claims of petitioners be disallowed.

Paragraph III

"The respondent for a third paragraph of answer to amended petition herein alleges and says: That it is a public utility as the same is defined by the laws of the State of Indiana and as such utility is now and has been for years last past engaged in the furnishing of electric service for residences, commercial and power purposes in a territory served by respondent comprising more than fifty communities, cities and districts and, in addition to said services, furnishes large quantities of electrical energy for the operation of mines, gravel pits, and other industries outside of any municipal corporation.

[fol. 34] "That said respondent obtains its electrical energy by purchase from inter-connecting transmission lines owned and operated by other corporations and also has and maintains four plants for generating electric current for the use of the entire system in cases of emergency and when otherwise required. That said plants are maintained at the cities of Martinsville, Spencer, Sullivan and Clinton, Indiana, and the value and operating expenses and taxes of said plants are charged to the general power costs of said Wabash Valley Electric Company system. That said costs are so charged for the reason that said several generating plants are maintained and operated for the use of the entire system and not for any one district or community.

"That in connection with said business, the respondent owns, maintains and operates numerous transmission lines interconnecting the various communities, districts and power sources and so maintains the same and has such connections that it is possible to have electrical energy from different generating sources and interconnecting points and all are used and useful in performing its service of furnishing electrical energy to the various cities, towns and districts and other uses of its service. That by reason of said fact, it is impossible to fix a specific cost to any community or district without considering it in its relation to all other districts, communities and persons served by said respondent throughout its said system. That without said interconnecting system and interdependent relations as herein described it is impossible to furnish the kind and character of service as now furnished within the rules of reasonable economy and with respect to natural equities and in such manner as to furnish equal opportunities for homes, factories, commercial and other uses. That in addition to said generating and transmission properties, said respondent has and maintains a distributing system confined largely to the several municipal corporations and territory adjacent thereto. That one of the territorial districts as served by said respondent is what is known as the Martinsville District, which covers the territory within the corporate limits of Martinsville and certain territory adjacent thereto, and in connection with said service respondent has and maintains an office in the City of Martinsville to operate said service and care for said proper-

ties and to do any and all things necessary and proper in connection with the furnishing of electric service in said district.

"Respondent further alleges and says that prior to July, 1927, respondent had in force, by and with the approval of the Commission, a schedule of rates and charges for electric service in said Martinsville District. That said schedule of rates and charges were based upon what is generally known as the Block system. That in the light of experience and the development of the electric service generally, and the increased use of electrical appliances, it became and is generally known that in order to furnish electric service for such appliances as well as light, the said schedule of rates as heretofore used can not be maintained and give equal opportunities to the various classes of homes without unfair discrimination and can not be [fol. 35] maintained consistant with economic principles for operating a utility such as respondent and can not be operated on principles of natural equity and fair dealings to the several districts served.

"That because of the facts as herein alleged, long before the filing of the original petition herein, respondent began an extensive study of schedules and plans for furnishing electric service with a view of placing in effect schedules of rates which would protect the equities of all of its consumers and the several districts served, and furnish equal opportunity, without unreasonable discrimination, and at the lowest practical cost, and in a manner to encourage the use of electrical appliances consistent with the needs of the communities served, and in such manner as to serve its different patrons and its different districts without unfair discrimination either as between the user in any district or as between the several districts.

"That prior to July 9, 1927, after the filing of the original petition herein, respondent did prepare and file with the Commission a schedule of rates for electric service in the district of Martinsville as the same was then applied to residence service and also filed rates covering service for commercial use, sanitariums and power purposes, all of which said rates and schedules are now in force under the order of the Public Service Commission, subject to change upon a final hearing and after observation of results over a reasonable trial period, which said schedule

of rates as now on file is now referred to and made a part of this answer the same as if written out in full as a part hereof.

"Respondent further says that said schedule of rates for residence service has been in force and under observation for current consumed beginning July 15th, and readings of August, September and October 15th. That respondent is carefully noting the results of said schedule and rates as applied to the several services and all classes of users in said district to which said rates apply. That in order to fully and fairly determine the practical result of said rates, it will be necessary to have a practical test of the same over a period of time and actual conditions as the same varies from month to month and season to season and that a satisfactory test of said rates can not be had under a total trial period of six months.

"Respondent further says that as a result of scientific studies of rates and the practical experience to this date and the observations made, it believes and now alleges the facts to be that said schedules of rates as filed and put into force temporarily by the Commission will result in a reduction of cost to the electrical consumers of said district of from $10,000.00 to $15,000.00 per year and that the reduction to consumers would be distributed fairly and equitably to the several services and to the several con- [fol. 36] sumers in the different services and without unjust discrimination.

"Respondent further alleges the facts to be the that said schedule of rates will make possible the use of electrical appliances in all classes of homes giving to the three, four and five-room houses equal opportunities with the larger houses and at a cost that will permit the general use of said appliances consistent with practical home economies.

"Respondent further says that the reductions so accomplished are such as will reduce temporarily the income of said utility below a fair and unreasonable return upon the value of its property used and useful in performing the service, but said utility asks for the adoption of said rate for the reason that it believes, and now alleges the facts to be, that with said rates greater use can be made of electric service and under conditions where the same can be served by the utility at the low cost and will finally be sufficient to provide a fair and reasonable return upon the value of its

property used and useful in performing the service and without unjust discrimination to any class of users and without unjust and unreasonable discrimination as between the several districts or communities served by respondent.

"Wherefore respondent respectfully asks that the matters and things herein alleged be inquired into that such additional time for observation and experience be fixed as in the judgment of the Commission the facts warrant and, upon a final determination of this cause, the form of schedule now temporarily in force be made permanent with such changes in the amount in the scale of rates now fixed in said schedule as the evidence may show are necessary, if any, in order that the rates may be just and reasonable and such as will furnish equal opportunities and distribute the economic advantages of said rates fairly among the several classes of users and without unjust discrimination to any other district or community served by respondent."

The first session of this hearing continued through November 7 and 8. During this hearing petitioners introduced evidence. It was agreed by petitioners that respondents would not be required at that time to cross-examine these witnesses, because petitioners agreed to accept respondent's representations that it had not completed its appraisals, was not ready to enter into hearing and, therefore, could not enter into hearing with prospect of completing the same.

Respondent had moved that ten days be given in which to respond to the amended petition. This motion was denied, the amended petition was accepted and respondent was given an exception to said ruling.

[fol. 37] Before the introduction of evidence by petitioners, an opening statement was made by O. C. Toner in behalf of petitioners and by S. C. Kivett in behalf of respondent.

Witnesses of petitioners examined were Earl L. Carter, chief engineer of the Public Service Commission of Indiana; Robert L. Gwin, accountant then connected with the accounting department of the Public Service Commission of Indiana, having been in charge of the audit made by the Commission's accounting department of respondent's books and records, and Lawrence Carter, certified public accountant, who identified petitioners' Exhibits Nos. 3 to 8 inclusive.

Cross-examination by respondent of above witnesses was postponed to time of subsequent hearing.

The date for subsequent hearing was agreed to by all the parties as January 9, 1928, the same to be held in the City Building at Martinsville, Indiana. At the time agreed upon public hearing was resumed. Commissioner Harmon joined the hearing Commissioner during all of the sessions beginning January 9. During this hearing all of the witnesses who testified for petitioners at the preceding session were questioned by respondent in much detail. In addition, the following persons offered their testimony in behalf of respondent: Adam Gschwindt, superintendent of the electric utility at Rockford, Illinois; L. B. Schiess, Indianapolis, treasurer and a director of the Wabash Valley Electric Company, Northern Indiana Power Company, the Indiana Service Corporation, the Attica Electric Company and other utility companies affiliated with respondent; B. E. Miller, Madison, Wisconsin, introduced as an expert in electric rates; J. F. McGuire, Fargo, North Dakota, manager of the Union Light, Heat & Power Company, and introduced as an expert witness in electric rate schedules; William Beardsley, of Pekin, Illinois, in charge of operation and rates of the Central Illinois Light Company at Pekin; Charles W. Spooner, Chicago, Illinois, a member of the firm of Spooner & Merrill, appraisal engineers; E. J. Haugh, Chicago, Illinois, expert accountant, representing the firm of Haskins & Sells, certified public accountants; Robert S. Drew, Evanston, Illinois, representative of the Business Research Corporation; William E. Vogelback, of Evanston, Illinois, public utility engineer, giving especial attention to rehabilitation of electric properties involved; B. H. Lybrook, general superintendent of the power system operating department of the Wabash Valley Electric Company; E. J. Kowalke, collector of miscellaneous statistics on the operation of the Wabash Valley Electric Company for the use of its present and other officers, and L. B. Andrus, president of the Wabash Valley Electric Company and president of several similar companies affiliated with it.

This hearing continued at Martinsville, Indiana, during January 9, 10, 11 and 12, 1928, and further hearing was had in the Rooms of the Commission, at Indianapolis, Indiana, [fol. 38] January 13, 1928. By agreement of the parties, time was fixed for filing briefs, and briefs were filed. Reply

briefs were filed by the parties also, thus completing the record in this cause.

During the hearing the following exhibits were introduced by petitioners:

Exhibit No. 1-A.—Appraisal by the Public Service Commission's engineering department of electric property in Martinsville and vicinity used in normal operation, on the basis of cost to reproduce new.

Exhibit No. 1-B.—Appraisal by the Public Service Commission's engineering department of electric property in Martinsville not used in normal operation, on the basis of cost to reproduce new.

Exhibit No. 1-C.—Appraisal by the Public Service Commission's engineering department of electric property used in normal operation, on the basis of estimated original cost.

Exhibit No. 1-D.—Appraisal by the Public Service Commission's engineering department of electric property in Martinsville not used in normal operation, on the basis of estimated original cost.

Exhibit No. 2.—Public Service Commission's report of audit of books of the Wabash Valley Electric Company and the Martinsville branch of said company.

Exhibit No. 3.—Petitioners' calculation as to fair value of property based upon engineers' appraisal of estimated cost to reproduce, plus estimated going value and estimated working capital.

Exhibit No. 4.—Petitioners' statement of income account based on property used and not used in normal operation.

Exhibit No. 5.—Same based on property used in normal operation.

[fol. 39] Exhibit No. 6.—Petitioners' exhibit of operating expenses and adjustments for period June 1, 1923 to December 31, 1926.

Exhibit No. 7.—Amount of depreciable electric property calculated by petitioners as used in normal operation and as not used in normal operation.

Exhibit No. 8.—Petitioners' comparison of effect of the active room basis schedule, comparing a consumer with five active rooms and the cost of a like amount of current for a commercial consumer.

Respondents introduced the following exhibits during the hearing:

Exhibit A.—Operating statements for the year ended July 31, 1927.

Exhibit B.—Comparison of local operating expenses and taxes (exclusive of power costs) for years ended December 31, 1926 and July 31, 1927.

Exhibit C.—Additions, improvements and betterments, actual and estimated.

Exhibit D (1 to 13, inclusive).—Spooner & Merrill's appraisal as of September 1, 1927, allocation to use utility property—(consisting of five sheets).

Exhibit E.—Spooner & Merrill's appraisal of electric property at Martinsville.

Exhibit F-1.—Summary of retirements and maintenance charges, ratio thereof to plant, property and franchises by periods from May 31, 1923, to October 31, 1927.

Exhibit F-2.—Haskins & Sells' report on retirements of [fol. 40] plant property from June 1, 1923 to October 31, 1927.

Exhibit G.—Summary of gross income before depreciation and percentage ratio thereof to plant, property and franchises and working capital by periods from May 31, 1923, to October 31, 1927.

Exhibit H.—Report by Business Research Corporation on expense and fixed charges applicable to residence lighting service as a minimum monthly charge in Martinsville.

Exhibit I.—Report by William E. Vogelback, engineer, on rehabilitation study January 3, 1928.

Exhibit J.—Condensed plant sheets for Wabash Valley Electric Company as of August 31, 1927, consisting of two sheets.

Exhibit K.—Comparative operating data by months for the first eleven months of 1927, in duplicate.

Exhibit L.—Results of application preliminary optional rates on the active room basis schedule on trial in Martinsville.

[fol. 41] Rates for Gas Eliminated

Stipulation was agreed to by all parties that the consideration of rates for gas should be eliminated from this cause, for the reason that the ultility had filed a reduction in the rates for gas. Said rate schedule and said stipulation were accepted and approved by the Commission.

Discussion of Delay

During the hearing the respondent was asked to agree upon a date certain as of which date fair value should be found. It refused to do so. That matter was left with the Commission.

The evidence of value fell into form as of about November 30, 1927. The Commission believes that value should be found as of that date, although public hearing was conducted principally in January, 1928.

Experts were brought from several states to testify upon active room form of schedule. Their testimony was so varied as to details of form in such schedules in their respective utilities and was so unanimous as to the benefits of such schedule that the Commission felt inclined to obtain experience in the Martinsville field served in order to throw the light of experience upon the expert testimony in the record. Accordingly the experience of the company for the year ending September 30, 1928, was obtained. Such study will be considered only as it may tend to clarify evidence in the record and not as evidence in this cause.

Not only residence lighting but commercial, sanitarium and power service were affected by new preliminary, optional schedules. The study referred to above was extended to these classes of service for the purpose stated above.

The utility was provided with copy of the study thus made and was requested to submit suggestions upon study of the same. The request was rejected by President Andrus, by letter.

The hearing Commissioner believes that these efforts have been in the interest of fairness, although they involved delay that has elicited some caustic criticism. Evidence in the form of prognostication should be tested by experience. Such test cannot be unfair to anyone. The active room schedule is new in Indiana. It did not appeal with favor to the members of this Commission. The utility sought its own experience under it. The petitioners, for the most part, agreed to a period of experimentation. The Commission wished such period to be of some value to all parties; hence the effort to secure the experience of one complete year and comparison of the same with the block rate which had been in effect for several years.

Local Communities and the Utility Act

Respondent insists that all of its property (the entire Wabash Valley system) be valued for the purposes of this cause, meaning thereby that valuation should not be confined to physical property used and useful in serving Martinsville and located within the territory served. Such [fol. 42] theory would involve finding fair value of all the Wabash Valley Electric property and allocating to Martinsville said community's share of total expense and return, and its share of the total property value.

This utility operates under an indeterminate permit, issued by the State of Indiana as provided by the Shively-Spencer Public Utility Act. The Public Service Commission of Indiana receives all of its authority from said act.

Section 9 of said act provides for such valuation, specifies certain elements that may be considered in determining fair value and says further: "In making such valuation the Commission may avail itself of any information in possession of the State Board of Tax Commissioners or of any local authorities."

Section 11 provides that the Commission shall serve a statement of value found "upon the public utility interested, and shall file a like statement with the clerk of every municipality in which any part of the plant or equipment of such public utility is located."

Section 14 provides that every public utility shall secure "the consent of the Commission and the proper local authorities" before availing itself of the benefits permitted by said section.

Section 57 requires the Commission to investigate rates, practices and alleged discrimination upon petition or complaint of "any mercantile, agricultural or manufacturing society or by any body politic or municipal organization or by ten persons, firms, corporations or associations * * * with or without notice", etc. Any (one) municipal organization is a proper party to petition.

Section 97 forbids the Commission to issue a permit authorizing "any public utility in any municipality where there is in operation a public utility engaged in similar service under a license, franchise or permit" until after public hearing, etc.

Section 110 saves to municipalities their authority over the use of their streets, their authority over the kind and quality of utility service and their authority in many other respects, indicating that each municipality may preserve its identity as a unit of utility operation.

All sections of the Shively-Spencer act tend to preserve for the local communities and for the local patrons (ten persons) the right to complain and the right to be heard, without incurring the burden of resisting the unreasonable and the unbearable expense of a rate case involving all other communities served by any utility which owns transmission lines for service of many communities.

Respondent's contention is so impracticable as to be prohibitive. One class of patrons in a local community could [fol. 43] have, and often have, a just complaint which they would better suffer than to undertake to secure relief, if respondent's theory should prevail.

The Commission believes the only practicable and equitable procedure to be that the general operation of respondent should be considered as such and should be considered separately from the operation of units serving local municipalities.

The right of ten persons and the right of any municipality to petition for reduction of rates or for adequate service would be abridged by the theory of respondent. The Indiana statute is specific in providing that ten persons or any municipality may petition and, the implication follows, that such right should not be abridged.

If "all the property used and useful," directly or indirectly, be valued in consideration of this rate case, it would not require a severe stretch of imagination to include in said evaluation the electric properties from which the respondent purchased current, though same are properties of other utility corporations.

In the case of the Hardin-Wyandot Lighting Company vs. Public Utilities Commission of Ohio, the Supreme Court of Ohio, in May, 1928, upheld an order of the Ohio Utilities Commission in which the Commission refused to include in the rate base "parts of the general plant situated in Upper Sandusky, Dunkirk, Kirby and other municipalities." The Ohio case affected the City of Kenton, Ohio. The parts of the general plant excluded from the rate base, supra, were found by the court to be "used during a peak period to help

the Kenton power house to carry its load in territory outside of Kenton." The court said: "It is self-evident in a rate controvery involving public utility rates charged in a particular municipality that only property used and useful in furnishing service in such municipality should be valued for the purpose of establishing such rate."

The court stated further: "An allocation was made by the Commission upon the basis of consumption of electric current in Kenton as compared with the electric current consumption in other territory served by the utility." (162 N. E. 262-8.)

The Ohio case is readily adaptable to the instant case. The allocation of the current required to serve Martinsville is the most convenient, the most accurate and the most equitable method to follow. Such allocation in the instant [fol. 44] case will place upon equal terms all communities served by this respondent. It will preserve the autonomy of each community served and will preserve for the citizens of each community the rights believed by this Commission to have been intended by the Shively-Spencer Public Utility Act to be sacred to them, viz: the right to petition the State authorities for relief from excessive rates, from inadequate service and from discriminatory practices. It will protect the several communities from the burden of prohibitive costs of appraisals and audits in rate cases. Such excessive costs can not be avoided if the properties serving all communities served by the Wabash Valley Electric Company must be considered as a whole and allocated to determine a fair rate for service rendered by the distribution system and local management in a single community. The establishment of a fair rate must not exclude common sense from the methods used in determining it.

An examination of the respondent's appraisals will disclose the fact that certain parts of their property have been omitted entirely, and other portions have been so intermingled that it is almost impossible to determine what is, or is not, included.

Assuming, however, for the purpose of the illustration, that they have filed complete appraisals, would it not be well to consider briefly where this theory would lead to, if followed consistently? Assume that a petition was filed for a reduction of rates by the City of Martinsville. Would

not this petition inevitably lead to an adjustment of rates, (if any change were made) in every one of the fifty or sixty cities, towns and villages served by the Wabash Valley system? In some cases the rate might be fair, yet all would have to be changed to conform to the needs of the entire system. The City of Martinsville would have no interest in the City of Spencer, yet by filing a petition Martinsville, according to respondent, could set in motion machinery which would directly affect every patron of the utility served in the City of Spencer.

Another pertinent question which suggests itself, if respondent's theory is accepted, is: Could there ever be any classification of cities or towns as regards the rates paid for service? Theoretically, every city and village is a component part of the whole structure, and, as such, would undoubtedly be entitled to the same treatment. Notwithstanding the fact that it might cost much more to serve some towns than others, all, in fairness, should join in carrying the burdens imposed by the system ownership. This being true, of course the hamlet would take the same rate as the city, and irrespective of cost to serve, would share equally in the blessings or burdens, as the case might be.

Again, as a practical question, under this theory, could there ever be a separate determination of a rate in any city [fol. 45] without a complete adjustment for the entire system? Obviously not, if all towns are component parts of the same system which must be valued together. Applying this reasoning to the present case, could there be a determination of a separate rate for Martinsville with the record as it now stands?

In addition to evidence of value, other things must be shown in determining a proper rate base, among which are operating costs, depreciation, etc.

Is there any place in the record—any evidence as to operating costs in any municipality other than Martinsville? If there is no evidence of this kind, would there not be a vital lack of evidence both on the part of petitioners and respondent? In this connection should a single municipality ever be put to the burden of determining for a rate base these other elements entering into the establishment of the rate base? If this evidence is missing, would the Commission not be forced to do one of two things, namely, ask for additional evidence or find against both

petitioners and the respondent on the ground of a lack of sufficient evidence. Such a course would be a travesty, to say the least. There should be some solution of the problem.

The answer is apparently plain. When the Shively-Spencer law was enacted, certain conditions existed and the law was undoubtedly formulated to meet those conditions. Franchises and permits to operate, each one separate and distinct, had been granted to the utilities then operating. No municipal corporation would have presumed to grant any rights outside its boundary, and any such attempt, of course, would have been useless. These franchises, when the law came into being, were exchanged for indeterminate permits, which did not enlarge the scope of the several operations, but simply changed the status of them in a legal sense.

If the Shively-Spencer act were repealed after the five-year time limit had passed, these franchises would revert to their former status, subject to each and all of the limitations first imposed (Sec. 100). Remember also that the municipality may always purchase the "major part * * * of the property actually used and useful for the convenience of the public," etc. (Sec. 100.)

Would respondent claim that, in order to make this purchase, the municipality would have to do all the things it insists must be done in the rate hearing in the case under consideration herein? If not, why should the rule be different in the one than the other?

It will be noticed that the purchase can only be made after a hearing and on value to be "determined by the Commission."

[fol. 46] By section 29 of the act it was very evidently intended that the separate entity of each city, town and village should be preserved. Clearly the granting of the franchise was a contract between the municipality and the utility and, while the operation of this contract may be suspended, it cannot under our constitution be abrogated, nor could any ex post facto law be passed which would change its effect.

If there were any doubt about it being the intent of the law to maintain the separate entity of every municipal cor-

poration in the state, section 41 of the act furnishes additional proof of the fallacy of this reasoning.

Very evidently the legislature, when it passed the Shively-Spencer act, did not intend to build up state-wide utilities so large as to make it impossible to have any check on them, but they intended the formulation of a law which would be fair to citizens, municipalities and utilities alike.

Cost of Energy at Gateways is Equitable Basis

Should the entire Wabash Valley Electric Company be appraised, the income calculated and fair return on all the property (both general and local) calculated, for the purpose of allocating to Martinsville its proportion of the physical property, its share in the income and its obligation in rendering its share of fair return? Or, should the total energy generated, purchased and sold be allocated upon the basis of the amount of energy delivered to Martinsville, said delivery of energy to include operating expense, taxes, fair return, etc. upon the generating system and property used and useful in delivery? The former method would bring the consumers at Martinsville face to face with an insurmountable proposition in a rate case. The patrons in any community are authorized by the Indiana law to petition for regulation of rates and service. The patrons of any single community in the Wabash Valley system would be prohibited (by the great expense) from undertaking a valuation of all the property of the system. If this valuation were undertaken by this Commission, the expense would be an excessive burden upon any single community and would, if allocated among all the communities served, be an expense to the other communities against which (in equity) they would have a right to rebel. In this connection could this Commission, without notice to all patrons of the utility, under the constitution of both state and nation, "take property without due process of law" by increasing rates or apportioning costs in a hearing to which they were not parties.

The quantity of energy delivered to the gateways of the several communities is ascertainable. The cost of same, including taxes, return, etc. is ascertainable. The cost to serve each community is, therefore, ascertainable. The [fol. 47] Commission believes that an impracticable method

should not be employed when a convenient and fair method is available. Therefore, the Commission finds that the cost of current delivered at the gateways should be the method used in calculating the cost of service to Martinsville in the instant case and the terms of the order in this cause will be based upon such finding.

Against this theory it is argued that there must not be discrimination by the utility against any community. Elsewhere in this discussion it is set forth that the Indiana utility act is based upon the rights of the individual patrons to demand equitable rates and adequate service in their several communities. The constitution of Indiana and the Constitution of the United States are bottomed upon the preservation of the rights of the individual.

The utility is familiar with its own rates, practices and service. It can not lawfully escape the duty to guard against discrimination of any kind. The method announced above does not even discourage the utility from eliminating or eradicating discrimination in every form (P. U. R. 1927 C 473).

Discussion of Evidences of Value

Present value of the property is the value upon which the rates and charges must yield fair return. Fair value and present value are interchangeable terms when used in a rate case. The value found must be fair and it must be the value at the time of inquiry. It must reflect proper deductions from the history of the utility and service rendered by it; also it must reflect a glance into the future both as to prospect of increase or decrease in the volume of patronage, as well as the profits or losses that may result therefrom. Rates are not made for today only, but for a reasonable period of years. Fair value and fair rates must be compatible with each other.

In determining fair value, no single evidence of value may control. Cost to reproduce new is important evidence of value, but is not the sole evidence of value. Historic cost is important evidence of value, but is not the sole evidence of value. Representations made by the utility to other public bodies that deal with value deserve consideration as throwing light upon evidences of value urged upon this Commission.

If the Commission be convinced that unit costs used in appraisals are "loaded", this fact should be considered in the light of the record. If the Commission be convinced that representation made to the Board of State Tax Commissioners to press down unduly the tax base, that should be considered. If the Commission be convinced that the book cost is unduly low or unduly high, that fact should be considered. All evidences of value must be considered, each according to its degree of importance in determining [fol. 48] fair value.

If the property is depreciated, that fact must be considered. If the property has appreciated, that fact must be considered. If the service to patrons is below adequacy, the rate of return must be fair to patrons; if the service is adequate, equal consideration must be given to that fact.

In other words, in a rate case, Fair Value must mean that the property will yield a fair return to its operators and will not require the patrons to pay more than a fair price for the service rendered them. The fairness must extend to those rendering service and to those receiving service.

On the basis of January, 1927, prices, inventory as of April 1, 1927, the engineering department of this Commission estimated the cost to reproduce new the electric property used in local service at Martinsville and vicinity at $93,476.00.

Same depreciated at 72,157.00.

Same, estimated original cost 89,169.00.

[fol. 49] (Above estimates to reproduce new include allowance of 15 percent for construction overhead expense.)

The respondent's engineers made corresponding estimate of cost to reproduce new, as of September 1, 1927, the property used in Martinsville at $102,285.00.

Same depreciated 88,721.00.

(See respondent's Exhibit D.)

Respondent's Exhibit C showed additions and betterments to Martinsville local plant completed from April 1, 1927, to November 30, 1927, to be	$4,116.36
During the same period, paid on open work in progress	2,583.39
	$6,699.75

The purpose of this part of this exhibit was to bring down to November 30, 1927, the appraisal made by the Commission's engineers as of April 1, 1927.

The same exhibit, by the same method, showed that there should be added to respondent's appraisal of the same property $4,116.09 to bring same down from September 1, 1927, to November 30, 1927.

These additions would increase the Commission's engineers' appraisals as follows:

Estimated cost to reproduce new	$100,175.75
Same depreciated	78,856.75
Estimated original cost	95,868.75
Respondent's estimated cost to reproduce new	106,401.09
Same depreciated	92,837.09

In Cause No. 6413 before this Commission, approved April 27, 1923, a value of $120,000.00 was fixed upon this property. Said value included:

Standby plant	$60,000.00
Working capital	6,000.00
Going value	8,000.00
Total	$74,000.00

Including said standby plant, the value of the depreciable property was declared, in the same order, to be $101,000.00; value of the "constantly used property" was found in that order to be $46,000.00.

What is known as standby plant, in said order, is now known principally as power plant. In 1923 it was supposed to be necessary and to be used to generate current at time when the transmission line then supplying current would fail to serve. In the instant case such portions of the standby plant of 1923 as is not used in local service is declared to be used as a part of respondent's general power system. This power plant was improved speedily and [fol. 50] wonderfully after the petition was filed in the instant case. Its operation as a part of the power system, up to such time, was of questionable value.

In the 1923 order (No. 6413 supra) the book value (exclusive of $55,060.22 carried on the books as going value)

was found to be $131,098.16. Concerning this the Commission's order said: "There is no evidence before the Commission that the actual amount of investment is truly reflected in the books." This remark seemed to be intended to carry especial significance. Evidently the company then owning the property was content because it accepted a total value for its physical property of approximately $25,000.00 less than shown by the utility's books.

The history of this property suggests close scrutiny of values.

Transcript, page 524: Witness Charles W. Spooner, utility's appraisal engineer. Question by counsel for petitioner concerning generating plant in Martinsville as part of respondent's total power system:

Q. Don't you think that from what knowledge you have that this local generating plant should be amortized out of the capital account gradually?

A. I think they will be faced with that condition before very long.

Further answer by the same witness disclosed that said generating plant was included in his appraisal (Respondent's Exhibit D-1) at $84,000.00, which corresponds with the figure of $46,829.00 in appraisal by the Commission engineers.

In view of and in connection with this difference in depreciated appraisal of the Martinsville power plant, the witness testified that he gave the power plant at Clinton 87 percent condition; the power plant at Sullivan 80.6 per cent condition; at Spencer, 76 per cent condition.

Witness stated that he gave the Martinsville power plant 83½ per cent condition, while the Commission's engineers gave it 45 per cent condition. Other testimony in the record indicated that the company had improved the condition per cent of this power plant after it was appraised by the Commission's engineers. However, the evidence did not warrant the conclusion that the gap between the two per cents condition had been closed by such improvements, or even nearly closed. Mr. Spooner's per cent condition of all this property, therefore, seems to deserve close scrutiny.

Witness Spooner, testifying as to the cost of poles, stated that in some instances the cost of poles was higher in his

appraisal, in some instances higher in the Commission engineers' appraisal; that in most instances the cost of poles in place was higher in his appraisal than in the Commission's engineers' appraisal, due to the fact that the witness added to the cost of material 4.56 per cent, to [fol. 51] the cost of labor 17.85 per cent, while the Commission engineers included such items as part of their 15 per cent overhead costs. The figures testified to above, by this witness, were in addition to witness' own general allowance for overhead costs.

The per cent added to material and labor costs by this witness in his appraisal, therefore, is 22.41 per cent in addition to his general per cent allowance for construction overheads, as compared with the Commission engineers' 15 per cent.

Mr. Spooner's testimony disclosed the following contrasts between his appraisal of poles in place in transmission lines in rural districts, similar poles in place in Martinsville and similar poles in place in Martinsville as estimated by Commission engineers:

Kind of pole	Spooner & Merrill		Commission engineers, town
	Transmission line	Town	
25 ft. 6 in	$9.96	$8.62	$7.22
30 ft. 6 in	13.68	11.93	9.14
30 ft. 7 in. (butt treated)	17.44	15.69	16.42
30 ft. 6 in. (western)	12.07	10.35	8.85

Generally speaking, pole prices and labor prices used by Spooner & Merrill were higher than the corresponding prices used by Commission engineers. Also, the overhead percentage added to both labor and materials was almost 50 per cent higher than the overhead percentage added by the Commission engineers. Also, the per cent condition of the property, generally, was higher than that found by the Commission engineers. The trend, throughout, was much higher in the appraisal by Spooner & Merrill than in the appraisal made by the Commission engineers. Reconciliation of these differences will compel the Commission to consider all obtainable evidences of value.

Both engineers had access to current prices of material, to current prices of labor, to soil conditions in the territory and to the effect of contract construction upon total costs.

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Both engineers had access to current prices of material, to current prices of labor, to soil conditions in the territory and to the effect of contract construction upon total costs.

Mortgage Contract and New Property

The respondent has given a mortgage upon its entire property. This mortgage requires the company to set up on the books from the earnings a reserve amounting to 12½ per cent of the gross revenues obtained from all sources except income from securities. Mr. Schiesz, treasurer of the company and witness, testified as follows (Trans. pp. 643-644):

"We are also entitled to make deductions for all expenses incurred in connection with retirement or replacement of property, and such losses as might be incurred in that connection. The sum of the current maintenance and the expenses and losses in connection with replacement and retirement of property is then deducted from the figure com- [fol. 52] puted on the basis of 12½ per cent of the gross revenues, and the balance remaining, if any, must be deposited with the Trustee in the form of cash and the cash is actually deposited, if the report shows that there is a deficiency in expenditures. Following that step of depositing the cash, the mortgage, or the terms of Article V, or the provisions of Article V, state that the company is entitled to withdraw that money from the fund by one method of substituting fundable construction which has not been made the basis for certification of bonds."

In 1926, the total requirement under the 12½ per cent mortgage clause was $132,707.00; deposited with the trustee for that year, $24,035.01; 1925, total requirement, $135,-643.93, deposited with trustee, $11,647.88. An exhibit prepared by this witness showed deposits in other years to be $56,891.63 for 1923; $7,827.58 for 1924; and that expenditures for maintenance and depreciation for 1927 exceeded the revenues from the 12½ per cent by $79,669.29.

The same exhibit showed the amount expended from this fund, before deposit with the mortgage, to be $34,942.18 for 1923; $109,179.82 for 1924; $123,996.05 for 1925; $108,-672.64 for 1926; and $236,675.87 for 1927, leaving a balance for the five years to be invested in new construction as $20,732.81.

It must be noted the expenditures from this fund in 1927 were more than $112,000.00 in excess of the expenditures for any other year; that the petition for rate reduction in

this cause was filed during the early part of the same year; and that the testimony of this witness warrants the statement that the above balances are invested in new construction.

It follows that the patrons have paid for this new construction and that the property so constructed is appraised for valuation as a rate base upon which the company expects to earn a return. Fair value of the property must take into consideration these facts.

The Commission believes the patrons should not be required to pay for utility property and pay a return upon the same property, without opportunity to participate in the return and in the management.

Depreciation

Article V of the mortgage provides for the fund designated in the instrument "Maintenance, Depreciation and Improvement Fund." Article V recites:

"All expenditures made by the company during any of such years properly and ordinarily chargeable to maintenance and depreciation of its property shall be charged on the books of the company to maintenance and depreciation, and the aggregate amount so expended for maintenance and depreciation by the company in such year shall be treated as a credit to the fund for such year."

It is apparent from the above that maintenance and de- [fol. 53] preciation charges are covered in the 12½ per cent provision of the mortgage. According to the terms of the mortgage these charges are to be made upon the company's books. Utility law and sound practice require such charges to be made as a part of the operating expense. Yet the company asks an allowance of 4 per cent per annum on the depreciable property for depreciation purposes in addition to the 12½ per cent requirement. The request seems to be for a double allowance for depreciation. Since the patrons must pay this, it is the Commission's duty to determine whether proper depreciation charges are covered in the 12½ per cent fund required by the mortgage.

Working Capital Allowance

The company seeks an allowance for working capital, the amount so allowed to be a part of the rate base upon which

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Working Capital Allowance

The company seeks an allowance for working capital, the amount so allowed to be a part of the rate base upon which

the company should earn a return. Such allowance will not be made in this cause, for the reasons given below.

In cause No. 7018, approved by this Commission June 26, 1923, in which the Wabash Valley Electric Company was petitioner and in which it was granted "authority to issue bonds and stock to refund its obligations and to acquire the properties of other public utilities", the Commission granted such authority in paragraphs designated in said order as "A", "B", "C", "D" and "E" and other paragraphs. Paragraph E of said order reads:

"$25,000 par value of its 7 per cent preferred stock and $110,000 par value of its common stock to be sold for cash at not less than 90 per cent of par to provide working capital for the property of petitioner and the properties to be acquired by it."

The above paragraph appeared in the order by which the Wabash Valley Electric Company was authorized to acquire the property of the Martinsville Gas and Electric Company, which is the property involved in the instant case.

Another paragraph of the order in cause No. 7018 reads:

"It is further ordered that on or before August 1, 1923, petitioner shall make report in writing to the Commission, showing therein the securities authorized herein that had been issued, sold or exchanged, and the property and cash received therefor, and also showing therein the consummation of the purchase of the properties which petitioner herein asks authority to purchase."

On or about July 28, 1923, the Wabash Valley Electric Company made report to the Commission as required by the last preceding paragraph. This report was executed on the 24th day of July, 1923, and was sworn to by H. R. Ellis and Marshall V. Robb, the former being a vice president and the latter secretary of the Wabash Valley Electric Company at that time. In this report of stocks and securities sold it is stated that "the proceeds thereof were used for the purposes specified in said Certificate of Authority, and for no other purpose."

[fol. 54] The last paragraph in the body of said report reads as follows:

"$25,000.00 of preferred stock and $110,000.00 of common stock sold at par, the proceeds to be used as working capital."

It appears, therefore, by virtue of authority granted by this Commission, working capital for the entire Wabash Valley electric system has been provided by the issue of preferred stock and common stock after public hearing; that the Martinsville Electric Company is a part of the system for which said preferred stock and common stock were sold to provide working capital.

In the appraisal made by the Public Service Commission's engineers is included the sum of $6,566.00 for materials and supplies which is a part of the working capital of the utility and which is included for the Martinsville property only. It would be obviously unfair for the Commission to grant in the instant case further allowance for working capital, because it would be a duplication of working capital now included in the appraisal of the Martinsville property.

Unit Cost of Energy Delivered

With respect to the income account, there is a sharp difference of opinion between petitioner and the respondents as to the power cost properly assessable against the consumers at Martinsville. The respondents assert a power cost of $59,037.10, and the petitioners that that power cost should be entered in the income account at $30,469.50. This difference is a result of different methods of arriving at the unit power cost.

Under the respondents' methods, the sum of approximately $59,000.00 is arrived at by multiplying the number of kw. h. used in Martinsville for the twelve months' period under consideration by a unit cost of $.027 plus per kw. h. The total power cost, according to the petitioners, is arrived at by multiplying that same number of kw. h. by a unit cost of $.0139 plus. The difference between these calculations of power costs is so great that, obviously, the method of arriving at these unit costs is most important.

During the year ending July 31, 1927, the Wabash Valley Electric Company purchased and generated a total of 57,549,193 kw. h. In that same period it sold a total of 51,457,770 kw. h. The difference between those two figures

was accounted for by a line and transmission loss. In others words, during the year there was actually sold by the Wabash Valley Electric Company a little over 51,000,000 kw. h. at a cost, including power cost, operating expenses and taxes, of $719,175.91, or at a unit cost of $.0139 plus per kw. h. sold.

All of this electrical energy was sold out of the interconnected transmission system or pool of power known as the Wabash Valley Electric Company. Of the total kw. h. sold 21,335,114 kw. h., or more than two-fifths of the total output, was sold to the Attica Electric Company and the [fol. 55] Northern Indiana Power Company, and 31,122,656 kw. h. were sold to the so-called "gateways" of the Wabash Valley Electric Company, including Martinsville. The Wabash Valley, therefore, sold two-fifths of its total kw. h. in that year to allied companies, and three-fifths to the so-called "gateways" of the company, including Martinsville, at an average sale price per kw. h. of $.0139 plus. It would have been expected that, inasmuch as all the electrical energy comes from the same pool of power, the price to Martinsville for that power would be the same as the price to the Attica Electric Company, that is $.0139 plus per kw. h. This is the method which the petitioners used in arriving at that power cost.

[fol. 56] Page seven of respondents' Exhibit A, introduced by Mr. Shies, treasurer of the respondent company, shows that the Wabash Valley Electric Company sold electrical energy to the two allied Insull companies at a cost of $.0125 per k. w. h., and sold electrical energy out of the same pool of power to Martinsville for $.027 plus per k. w. h.

Under the respondents' method of calculation, electrical energy from a common pool was sold to allied utilities at less than the actual cost to the Wabash Valley Electric Company (selling company), and was sold to Martinsville and other towns in the system at substantially double the cost.

In calculating the sale price of electrical energy the Wabash Valley Electric Company charged against the so-called "gateways", including Martinsville, all of the depreciation and return that the Wabash Valley Electric Company was entitled to earn. Respondent did not charge any of that depreciation and return against the two allied utilities, and also did not charge anything to meet operating cost and power cost. This was aside from the depreciation

and return. In other words, under the respondents' method of allocating its cost, the various towns in the system, including Martinsville, which purchased only three-fifths of the total output of the Wabash Valley Electric Company, paid not only for the depreciation and return charged on the three-fifths of the property devoted to its use, but did pay the depreciation and return charged on the entire five-fifths of the property, thus allowing the two allied utilities to escape without paying any depreciation or return whatsoever. Not only were the towns of the system, such as Martinsville, penalized by paying the depreciation and return on the entire property, but were also penalized by paying some of the actual out-of-pocket power cost under the respondents' method of calculation.

To recapitulate, under the theory of respondent's exhibit, the total over-all cost of all the electrical energy which the Wabash Valley Electric Company sold during the year in question, including depreciation and return, was $.0139 per k. w. h. This electrical energy, which cost $.0139 per k. w. h., was sold to allied utility interests at $.0125, or under actual cost. The same electrical energy, coming out of the same interconnected transmission system and coming out of the same pool of power, was sold to the "gateways", including Martinsville, at $.027. Obviously, this method of calculation and allocation is unfair to Martinsville, and the power cost thus arrived at by respondents is too high.

The Commission believes, therefore, that the unit cost of power property assessable against the City of Martinsville should be $.0139 plus, to which should be added fair return on the property used and useful to generate such current and deliver it to Martinsville.

[fol. 57]

Conclusions

Having considered all matters presented in this cause and being thereby sufficiently advised, the Commission finds:

(1) The fair value of the property used and useful for serving the petitioners herein is $87,000.00, including going concern value and working capital, as of November 30, 1927.

(2) The fair rate of charge, by the general system of respondent to the City of Martinsville, for electrical energy furnished at the "gateway" of said city for service therein,

is $.0172 per k. w. h., which charge includes production cost, depreciation and return.

(3) The amount of working capital to which the electric property in Martinsville is entitled on account of its service to petitioners is exceeded by the amount of materials and supplies included in the appraisal of the Martinsville property. Therefore, no additional allowance should be made for working capital in this cause.

(4) Demand by respondent for allowance for depreciation is met, as shown by respondent's statement filed, by provision in Article V of mortgage on the utility property, in which 12½ per cent of certain gross revenues of the company is set aside to be used for maintenance, depreciation and improvement. For this reason no additional allowance for depreciation should be made.

(5) Energy sold by respondent to other public utilities should be sold to them at no less price than is charged for energy furnished by said respondent to Martinsville at the "gateway".

(6) The respondent should be permitted to put in effect a preliminary, optional rate for service, based upon the active room plan of rate schedule, and should be required to keep in effect such optional rate so long as such form of rate shall not be applied to the disadvantage of the patron, although the Commission may not now be in complete harmony with such form of preliminary, optical rate.

(7) The distribution system at Martinsville should be considered separately from the power system and the general system of distribution of respondent in this cause, both as a matter of convenience and accuracy of calculation, and to preserve to the patrons of the several communities the rights intended to be preserved for them by the Shively-Spencer Public Utility Act, amendements thereto and modifications thereof.

(8) The Commission finds that the schedule of rates and charges set out below will be adequate to meet the requirements of the company for rendering service to Martinsville [fol. 58] and to yield a 7% return on the fair value of the company's property.

(9) The price per k. w. h. charged to Martinsville for energy furnished at the "gateway" should not be more than Martinsville's fair and equal proportion per k. w. h. for all energy sold by the company's general system to all customers, including allied public utilities to which energy is sold.

(10) The Commission finds that the revenues of the respondent at Martinsville should be reduced not less than $25,000.00 per year, said reduction to be based upon the total revenues shown by respondent for the year ending July 31, 1927.

(11) The Commission finds that the respondent should set up in a depreciation fund, as required by law (Acts 1925, chapter 64, page 210) a sum not to exceed 4 per cent per annum of the depreciable property used and useful in Martinsville; that said sum should be taken from the proceeds accruing from the 12½ per cent clause in the mortgage; that said sum should be used for depreciation purposes only, consistent with the mortgage contract, but not inconsistent with the law; that the proceeds thus acquired used in temporary construction should not remain so invested for a period longer than twelve months; that the permanent investment of such funds in construction of property should be forbidden.

It is therefore ordered by the public service commission of Indiana that, for the purposes of this cause, the charge for energy furnished by the general system of the respondent shall be the equitable share of the Martinsville utility property and service of the cost, including depreciation and return of all energy sold by the general system of respondent, as of the year ended July 31, 1927; that said charge shall be $.0172 per k. w. h.

It is further ordered that respondent be and is hereby required to put in effect and keep in effect until further order of this Commission two forms of rate schedule modeled after the two forms of rate schedules in effect at time of hearing, and that such rate schedules shall be as set out below in this order.

Wabash Valley Electric Company, Martinsville Electric

Residence Rate Schedule

Monthly consumption	Gross	Net	
First 25 K. W. H.	$.065	$.06	per K. W. H.
Next 25 "	.055	.05	" "
Next 50 "	.045	.04	" "
Next 200 "	.0425	.0375	" "
Next 200 "	.04	.0350	" "
Next 500 "	.0375	.0325	" "
All over 1,000 K. W. H.	.035	.03	" "
Minimum	1.10	1.00 per month	

[fol. 59] Optional Residence Rate Schedule

(Active Room Basis)

Monthly consumption	Gross	Net	
First 4 K. W. H. per active room.	$.08	$.07	per K. W. H.
Excess	.04	.04	" "
Minimum	1.10	1.00 per month.	

Commerical Rate Schedule

Monthly consumption			
Service Charge	.75	.75 per month.	
First 175 K. W. H.	.06	.05	per K. W. H.
All over 175 K. W. H.	.04	.04	" "

The net rate to apply if bill is paid within the discount period, otherwise the gross rate shall apply.

Electric Cooking and Heating Rate

Available for service through separate meter for cooking and heating and also for domestic refrigeration when the consumer is using this service for cooking and heating and also uses the lighting service under regular lighting rates.

Rate:

	Per K. W. H.
First 400 K. W. H.	$ .04
All over 400 K. W. H	.03

Minimum Charge:

The minimum charge shall be $24.00 per year for the first 8 K. W. of connected load, and $3.00 per year per K. W. for each additional K. W. or fraction thereof.

Term of Contract:

One year.

The above rates are net and subject to an additional collection charge of 10% if not paid within the discount period.

Schedule of Rates for Sanitariums

Available for mixed load of lighting, heating and power, to sanitariums having a billing demand of not less than 10 K. W. or not more than 200 K. W.

Demand Charges:

	Per month
First 7½ K. W	$1.25 per K. W.
Next 30 K. W	1.10 " "
All over 37½ K. W	1.00 " "

Plus an energy charge as follows:

[fol. 60]

First 3,000 K. W. H. per month	$ 025 per K. W. H.
Next 7,000 " " "	.0225 " "
Next 10,000 " " "	.0220 " "
Next 30,000 " " "	.021 " "
All over 50,000 " " "	.02 " "

Determination of Billing Demand:

Billing demand shall be the sum of the demands of the power, heating and lighting loads. Demands shall be determined by the measurement or, at the option of the company, be estimated, using the following percentages of connected load:

1 to 7½	K. W.	demand	shall	be	equivalent	to	60%	of	connected	K. W.
7½ to 37½	"	"	"	"	"	"	55%	"	"	"
Over 37½	"	"	"	"	"	"	50%	"	"	"

Minimum Charge:

Consumers will be required to sign formal contract specifying the connected load to be served and 40% of the equivalent of this load expressed in K. W. shall constitute a minimum monthly demand charge but in no event shall it be less than 10 K. W., irrespective of the amount of energy used.

All of the above rates are net and are subject to an additional collection charge of 10% if not paid within the discount period.

Small Power Rate Schedule

Available for consumers having connected load less than 100 H. P.

Demand Charge:

$1.25 per K. W. per month of billing demand, plus an energy charge of:

Energy Charge:

First 5,000 K. W. H. per month	$ .0225	per K. W. H.	
Next 5,000 " " "	.021	"	"
Next 40,000 " " "	.02	"	"
All over 50,000 K. W. H. per month	.018	"	"

Determination of Billing Demand:

The billing demand shall be determined by measurement or at the option of the company by estimate, using the following percentages of connected load:

1 to 7½ K. W. demand shall be equivalent to	60%	of connected	K. W.
7½ to 37½ " " " " "	55%	" "	"
Over 37½ " " " " "	50%	" "	"

Minimum Charge:

The minimum charge shall be the demand charge but in no case less than $4.00 per month.

All of the above rates are net and are subject to an addi- [fol. 61] tional collection charge of 10% if not paid within the discount period.

Wholesale Power Rate Schedule

Available to coal mines, clay industries and other power users contracting for a definite amount of electrical capacity (not for the purpose of resale) not less than 100 K. V. A. nor more than 1,000 K. V. A. Contracts will be made in multiples of 50 K. V. A. and or in total amounts conforming to standard sizes of transformers. Current will be supplied at 3 phase, 60 cycle, 2,300 volts unless otherwise agreed upon. Incidental lighting not to exceed 20% of power shall be permitted upon this rate.

Demand Charge:

The maximum demand charge shall be determined as of the highest 15 minute integrated peak occurring during the month. The demand shall be charged for at the following rates:

$1.25 per month per K. W. of maximum demand.

Energy Charges:

In addition to the demand charge, consumer agrees to pay an energy charge based on the number of K. W. H. consumed each month at the following rates:

	Per K. W. H.
First 5,000 K. W. H.	$ .0225
Next 10,000 "	.02
Next 15,000 "	.0175
Next 20,000 "	.0160
Next 50,000 "	.0150
All over 100,000 K. W. H.	.0135

Minimum Charge:

The minimum demand charge shall be required to be named in each contract, but shall not be less than 40% of the amount of contracted capacity.

These bills are net and subject to a 10% additional collection charge if not paid within the discount period.

It is further ordered that the schedule of rates and charges set out above shall be put in effect by respondent upon all

billings for service rendered at Martinsville on and after February 1, 1929.

It is further ordered that the rate case expense charged to Martinsville shall be amortized over a period of ten years, shall be charged as an operating expense against the revenues from service at Martinsville, and shall not exceed $400.00 per year.

It is further ordered that respondent shall pay to the State of Indiana, through the secretary of this Commission, the sum of $1,000.00 as costs for appraisal of the electric [fols. 62-70] property of respondent at Martinsville and audit of respondent's books in connection therewith; also the sum of $5.11, cost of legal publication of notice of hearing, a total of $1005.11; that such payment shall be made within twenty days after date of approval of this order.

It is further ordered that the amended petition filed in this cause be and is hereby held to be sufficient; that respondent's motion, that said petition be dismissed, be and is hereby denied.

It is further ordered that jurisdiction in this cause be and is retained by the Public Service Commission of Indiana for a period of one year after rates prescribed herein shall be put in effect, for the purpose of determining from such experience whether rates prescribed herein are fair, equitable and without discrimination, upon the basis of section 29 of the Shively-Spencer Public Utility Act.

It is further ordered that any funds "expended temporarily" for "new construction, extensions or additions to its utility property" from the depreciation fund shall be "expended temporarily" for a period not exceeding twelve months, and the words "temporarily expended", as used in connection with said fund, are hereby construed to mean a period not exceeding twelve months.

It is further ordered that any balance from any revenues paid by patrons as rates and charges for service shall not be expended except temporarily for new construction against which bonds or other securities may be issued lawfully.

It is further ordered that the Wabash Valley Electric Company be and is hereby ordered and directed to set aside, annually, in a fund for depreciation purposes, a sum equal to 4 per cent of the depreciable property used and useful

at Martinsville, to acquire the money for said fund from the revenues obtained by the operation of the 12½ per cent clause in the mortgage heretofore referred to in this order, and to use said fund only as authorized by the law and the provisions of this order consistent therewith.

Harmon and McIntosh concur.
McCardle and Ellis not voting.

Approved January 26, 1929.
Attest:
Fred I. King, Secretary. (Seal Public Service Commission of Indiana.)

ad.

[fol. 71] IN UNITED STATES DISTRICT COURT

[Title omitted]

SEPARATE ANSWER OF THE DEFENDANTS, FRANK T. SINGLETON, JOHN W. MCCARDLE, HOWELL ELLIS, HARVEY HARMON, CALVIN F. MCINTOSH, AS MEMBERS OF THE PUBLIC SERVICE COMMISSION OF INDIANA, JAMES M. OGDEN, AS ATTORNEY GENERAL OF INDIANA, AND HARRY G. LESLIE, AS GOVERNOR OF INDIANA—Filed March 14, 1929

I

Said defendants, for answer to the plaintiff's bill of complaint herein, say that they admit that the defendants, Singleton, McCardle, Ellis, Harmon and McIntosh, were, on the 26th day of January, 1929, and at all times referred to in the plaintiff's bill of complaint, and now are, members of the Public Service Commission of Indiana; that said Public Service Commission of Indiana is a body created by the statutes of the State of Indiana, charged with the duty of the regulation and control under said statutes of all public utilities in the State of Indiana; that among other duties said Public Service Commission of Indiana, and the members thereof, are charged with the duty of approving and determining fair and reasonable tariffs, rates and charges for the services of public utilities in the State of Indiana. [fol. 72] That the defendant Harry G. Leslie is the Gov-

ernor of the State of Indiana and is also charged with certain duties with reference to the enforcement of the orders of the Public Service Commission of Indiana; that the defendant James M. Ogden is the Attorney General of the State of Indiana, and under the laws of said State is charged with the duty of commencing and conducting suits and proceedings to enforce the orders of the Public Service Commission of Indiana, and to regulate and enforce fines and penalties imposed by the statutes of the State of Indiana for violation of the orders of said Public Service Commission of Indiana. That each and all of said defendants are official residents of Marion County, Indiana, and the defendant James M. Ogden is actually and regularly, as well as officially, a resident of Marion County, Indiana.

II

Said defendants admit that the plaintiff is a corporation organized under the laws of the State of Indiana for the purpose, among other things, of manufacturing, buying, selling and distributing electricity for light, heat and power to cities and towns and to the public in general in the State of Indiana, as a public utility and was at all times referred to in the plaintiff's bill of complaint and is now engaged in said business under the supervision, and subject to the regulation of the Public Service Commission of Indiana, under indeterminate permits from said Public Service Commission of Indiana.

III

Said defendants admit that the plaintiff's bill of complaint is a suit of a civil nature, in equity, and is brought for the purpose of enjoining the enforcement of a certain order of the Public Service Commission of Indiana made and approved January 26, 1929, prescribing the rates and [fol. 73] charges to be made by the plaintiff for its electric service rendered in the City of Martinsville, Indiana, all as hereinafter more particularly alleged, and arises under the constitution and laws of the State of Indiana.

Said defendants admit that the plaintiff charges in its bill of complaint that the rates and charges prescribed in said order are confiscatory of the plaintiff's property, used and useful in furnishing electric service to the cities, towns

and to the public in general, and that the plaintiff therein alleges that by said order the plaintiff is deprived of its property without due process of law, and alleges therein that the plaintiff, by said order, is denied the equal protection of the laws in violation of its rights under the Fourteenth Amendment of the Constitution of the United States.

Said defendants admit that the amount in controversy in this suit exceeds the sum of Five Thousand Dollars ($5,000.00), exclusive of interest and costs.

IV

Said defendants admit that the plaintiff owns and operates plants and properties located in Vigo, Warren, Fountain, Morgan, Tippecanoe, Parke, Putnam, Owen, Clay, Greene and Sullivan Counties of the State of Indiana, utilized by it in the production, transmission and distribution of electricity, and the sale thereof, to cities and towns and the public in general in said counties; that the defendants admit that the plaintiff owns and operates power plants in the cities of Martinsville, Spencer, Sullivan and Clinton, Indiana, and furnishes electricity service to said cities and to approximately fifty other cities, towns and communities in said counties above named, and it supplies electricity to numerous industrial plants and rural individual customers not located within the corporate limits of cities and towns; the defendants admit that the plain-
[fol. 74] tiff buys electricity from the Indiana Electric Corporation, which has a large and modern generating plant in the coal beds of the Wabash River in close proximity to the territory served by the plaintiff; that it does not sell to Indiana Electric Corporation any current; the defendants admit that the plaintiff sells electricity to the Illinois Power and Light Company, Interstate Public Service Company, Northern Indiana Power Company and Attica Electric Company, and purchases electricity from time to time from said corporation, and also sells electricity to the cities of Covington, Veedersburg and other municipalities for re-sale by said municipalities over their own distribution systems to the inhabitants of said municipalities; that the plaintiff supplies approximately eighteen thousand individual customers with electricity scattered over the elev-n counties hereinbefore named.

Said defendants admit that the plaintiff's purchases and sales from and to said Illinois Electric Power and Light Company, Interstate Public Service Company, Northern Indiana Power Company and Attica Electric Company, are under contracts and agreements, on an interchange basis and said interconnections made available to the communities and customers of the power plants, facilities and resources of the plaintiff, and also the power plants, facilities and resources of the connecting utilities for regular or emergency service.

Said defendants admit that the plaintiff, in addition to its electric properties, also owns and operates a few small gas and water plants not involved in the proceedings before the Commission herein referred to and not involved in this proceeding, and all allegations herein as to property, income, cost, or otherwise, apply to and include only the plaintiffs' electric property and business.

[fols. 75-77] V

Said defendants admit that on March 16, 1929, seventeen citizens of the City of Martinsville, electric patrons of the plaintiff at Martinsville, Indiana, filed with the Public Service Commission of Indiana their petition asking for a reduction of electric rates in Martinsville, Indiana; that on said date the plaintiff had on file with the Public Service Commission of Indiana tariffs, schedules and rates for its service, but said defendants deny that said tariffs, schedules and rates did not yield a net revenue in excess of a fair return of the property of the plaintiff, used and useful in its electric service in the said City of Martinsville. Said defendants admit that while said petition was pending the plaintiff filed a new schedule of rates and charges for Martinsville which become effective July 1, 1927, but said defendants deny that the said rates which became effective on July 1, 1927, reduced the plaintiff's gross revenue in Martinsville during the following year in the sum of Eleven Thousand Four Hundred Sixty-nine Dollars ($11,469.00), below the revenues which it would have realized in the same business under the preceding rates. Said defendants admit that from time to time hearings were held upon said petition and that on January 26, 1929, the Public Service Commission of Indiana, made and approved an order and fixed

and designated therein schedules of rates and charges to be put into effect by the plaintiff upon all billings for service rendered at Martinsville on and after February 1, 1929, which said schedules of rates and charges are as follows:

"Here appears the schedule of rates contained in the order of Jan. 26, 1929, attached to the bill of complaint as Exhibit A."

[fol. 78] Thereafter on February 7, 1929, plaintiff filed with said Commission its petition for a rehearing of said cause, which petition was overruled and a rehearing denied by a supplemental order made by said Commission in said cause on February 15, 1929.

Said defendants admit that a certified copy of said order of said Commission, dated January 26, 1929, is attached to and made a part of the plaintiff's bill of complaint marked Exhibit A.

Said defendants further admit that a certified copy of said supplemental order of February 15, 1929, is attached to and made a part of the plaintiff's bill of complaint marked Exhibit B.

VI

Said defendants deny that on the 26th day of January, 1929, plaintiff owned property used and useful in the generation, transmission, distribution and sale of electricity that had a value of $5,026,437.59 or more; that said defend-
[fol. 79] ants do not know whether in the year 1928 plaintiff's gross revenue was $1,691,154.84, and therefore call for the proof thereon. Said Defendants deny that in the year 1928 the total operating expenses of plaintiff were $1,412,320.63 and say that said expenses were less than said figure; that the balance for said year available for return was more than $278,834.21; and defendants deny that the revenues available for return in 1928 were inadequate, or unfair or unreasonable to plaintiff.

Said defendants do not know what effect the rates at Clinton and Greencastle would have had on plaintiff's revenue in that year and call for the proof thereon.

Said defendants deny that the rates fixed by said Commission are confiscatory and that they take plaintiff's property without due process of law, and that they violate plain-

tiff's rights under the Fourteenth Amendment to the Constitution of the United States.

VII

Said defendants admit that said Commission found that the cost of electricity at the "gateway" at Martinsville, including an allowance which would produce a fair return on plaintiff's general power system, is $.0172 per KWH; that it fixed the fair value of plaintiff's local property at Martinsville used and useful for distributing current in Martinsville at $87,000; said defendants say that said valuation was not based on the sole testimony of the Commission's engineer, but was based on all of the evidence in the case, and defendants say that said value is not too low for the fair value of said property as a rate base; that no cash working capital was included in said fair value figure because adequate provision for such capital had been made by said Commission in relation to plaintiff's general business; that said Commission did include working capital in the form of material and supplies at Martinsville in the amount of $6,566; that the Commission's order refused a separate [fol. 80] allowance for current depreciation because plaintiff, under the terms of its mortgage, was already providing an adequate fund for depreciation purposes; that the Commission found the value of said property as of November 30, 1927, and added all additions made to that date; that plaintiff did not request, before said order was issued, that the Commission make further provision for additions in its finding of fair value; said defendants deny that the rates fixed by the Commission will not yield a return of 7% on $87,000, and say that they will yield such return.

VIII

Said defendants say that the actual cost of current delivered at the gateways and sold to allied companies was $.0184 per KWH on January 26, 1929, and during the year 1928, and deny further that such cost was $.024996 per KWH at such gateways exclusive of said allied companies. Said defendants deny that the charge of $.0172 per KWH used in fixing said rates is confiscatory of plaintiff's power system property and that it takes said property without due process of law and that it violates plaintiff's rights under

the Fourteenth Amendment of the Constitution of the United States.

IX

Said defendants deny that the sum of $363,225.72 is required to make a fair return on the fair value of plaintiff's general power system property and to provide a reasonable depreciation charge on the depreciable property; said defendants deny that the method used, and the provision made, by the Commission for a fair return of plaintiff's power system property, allocable to Martinsville is arbitary, unreasonable or in denial of due process of law.

Said defendants deny that the fair value of the power system property as of December 31, 1928, was $3,360,999.16, and said defendants deny that a fair return thereon is 8% or $269,437.93; said defendants deny that as of December 31, [fol. 81] 1928, the cost of reproduction new of plaintiff's depreciable power system property was $2,778,864.16; and deny that a fair rate of depreciation thereon is 4%, or $111,433.57, and deny further that the required depreciation and return is $380,871.50.

X

Said defendants deny that said Commission acted arbitrarily or in denial of due process of law in fixing said rates. Said defendants deny that said Commission refused to make an allowance for current depreciation, and say that said Commission expressly found in its order that the "gateway" cost of electricity at $.0172 per KWH "includes production cost, depreciation and return."

Said defendants deny that plaintiff's rates have been inadequate to create a depreciation reserve, but say that under the provisions of Article 5 of a mortgage on plaintiff's property plaintiff has expended or set aside for maintenance and depreciation out of its gross earnings, that plaintiff has charged items properly chargeable to depreciation to maintenance, and has, under said mortgage provision, used part of said 12½% fund for new construction.

XI

Said defendants deny that said Commission in determining said rates arbitrarily and unreasonably and in denial of due process of law failed and refused to include or recog-

nize working cash capital as a part of the fair value of plaintiff's property; said defendants say that such element was not included in the value of the local property at Martinsville and that this omission was proper because said property is not locally managed or operated, but is managed and operated out of plaintiff's general office elsewhere and as a part of plaintiff's general business; that as to plaintiff's property generally said Commission did recognize working cash capital and had that element and a fair return on it as a part of plaintiff's power system property in view [fol. 82] when it calculated the "gateway" cost of electricity at Martinsville at $.0172 per KWH.

XII

Said defendants deny that it was unfair and unreasonable to determine the "gateway" cost of electricity at Martinsville from the average cost of all electricity sold and delivered by plaintiff; said defendants deny that, in order to determine a fair gateway price, sales to the Attica Electric and Northern Indiana Power Companies should be eliminated from revenue, and deny that $.024996 is a fair gateway charge in an inquiry of what are just and reasonable retail rates to be charged to consumers at Martinsville.

Said defendants admit that during the year ending July 31, 1927, plaintiff delivered 2,180,124 KWH to the Martinsville Gateway for Martinsville consumers; 30,122,656 KWH to the several municipal "gateways"; and 21,335,114 KWH to the Attica Electric and Northern Indiana Power Companies.

Said defendants do not know the quantities of electricity delivered by plaintiff during the calendar year of 1928 and therefore neither affirm nor deny plaintiff's allegations as to such quantities and call for the proof thereon.

Said defendants deny that 1¼ cents per KWH is a fair and reasonable charge for the electricity sold by plaintiff to allied companies; said defendants say that said price is unfair and unreasonable in relation to the charge that would have to be made for electricity at the municipal "gateways" in order to provide revenues to meet the expenses and requirements for return of the general power system; that approximately two-fifths of plaintiff's business consists of buying electricity and selling it to allied companies and

that the cost of conducting that portion of the business is inextricably involved and included in the cost of conducting plaintiff's entire business, so that it would be unfair to the [fol. 83] patrons at Martinsville and at other municipalities in plaintiff's system to attempt to segregate the business relating to the sale of electricity to allied companies and charge a much higher "gateway" price at municipalities than plaintiff charges at its allied company "gateways."

XIII

Said defendants admit that the Commission computed the "gateway" cost at Martinsville at $.0172 per KWH on the basis of figures for the year ending July 31, 1927, but deny that $.021 would be required during that period to provide revenues for proper operating expenses, depreciation and return on plaintiff's general power system property, and deny that for the same purposes a charge of $.0184 would be required for the calendar year of 1928. Defendants deny that a gateway charge of $.0270747 for 1927, or $.024996 for 1928 represent fair and proper average gateway costs for those periods.

XIV

Said defendants deny that plaintiff's used and useful local property at Martinsville was of the fair value of $141,520.38 on December 31, 1928.

Said defendants deny that plaintiff sustained an operating deficit of $1,575.32 or in any other amount at Martinsville during 1928, and deny that the cost of said business in 1928 was $96,680.79. Defendants do not know whether the gross revenue for 1928 at Martinsville was $95,105.47, and therefore call for the proof thereon.

Said defendants deny that the rates fixed by the Commission, if in force during 1928, would have reduced revenues in the sum of $14,566.33 or would have caused an operating deficit of $16,141.65 or any other amount; said defendants deny that if gateway charges of $.0184 were applied at Martinsville the rates fixed by the Commission would yield only $421.73 for return on the Martinsville [fol. 84] property, and deny that if such charge were $.0172 only $3,435.08 would have been yielded for return.

Said defendants deny that according to the method used,

by the Commission to fix said rates the same are inadequate, unfair and unreasonable or confiscatory or violative of any rights of plaintiff under the Fourteenth Amendment of the Constitution of the United States.

XV

Said defendants deny that the rates in force at Martinsville prior to January 26, 1929, will not yield more than a fair return on plaintiff's used and useful property at Martinsville, and deny that the revenues from said rates together with plaintiff's other revenues will yield less than a fair return on the fair value of plaintiff's property generally.

Said defendants do not know whether the rates at Martinsville prior to January 26, 1929, were lower than at other cities served by plaintiff, and call for the proof thereon. Said defendants deny that it is more expensive to serve the people at Martinsville than elsewhere, and say it is immaterial what the cost of manufacturing electricity locally at Martinsville would be.

XVI

Said defendants deny that plaintiff has no adequate remedy at law, and say that a legal remedy is provided to plaintiff by the statutes of Indiana for contesting the validity or reasonableness of said rates in State Courts.

XVII

Said defendants deny that plaintiff is in need of immediate relief, and deny that it is entitled to permanent relief from said order of the Commission.

Said defendants say that plaintiff's bill herein should be dismissed for want of equity.

[fols. 85-89] Wherefore said defendants ask for judgment dismissing plaintiff's bill and for costs and all other proper relief.

James M. Ogden, Attorney General of Indiana;
Samuel R. Artman, Assistant Attorney General of Indiana, said Defendants' Attorneys.

[fol. 90] IN UNITED STATES DISTRICT COURT

ORDER GRANTING PETITION TO INTERVENE—April 6, 1929

It is ordered by the Court that the petition of the City of Martinsville to intervene be, and the same is, hereby granted.

Said City of Martinsville also files answer, which answer is as follows:

[fol. 91] IN UNITED STATES DISTRICT COURT

[Title omitted]

ANSWER OF DEFENDANT CITY OF MARTINSVILLE—Filed April 6, 1929

The City of Martinsville, leave of Court to intervene and appear as a defendant in this cause having first been had and obtained, says:

I

This defendant admits that each of the defendants, Singleton, McCardle, Ellis, Harmon and McIntosh, constitute the Public Service Commission of Indiana; that defendants, James M. Ogden and Harry G. Leslie are respectively the Attorney General and Governor of Indiana.

[fol. 92]

II

Defendant admits that plaintiff is an Indiana corporation doing business as a public utility in furnishing electricity to cities and towns and the public.

III

Defendant admits this is a civil suit in equity to enjoin the enforcement of Order No. 8894 of the Public Service Commission of Indiana, entered January 26, 1929, fixing rates to be charged by plaintiff for the furnishing of electricity to defendant, City of Martinsville, and to the inhabitants thereof, but denies that said rates are confiscatory of plaintiff's property or, that said order deprives plaintiff of its property without due process of law or de-

prives it of the equal protection of the laws in violation of plaintiff's rights under the Fourteenth Amendment of the Constitution of the United States.

Defendant admits that the sum in controversy exceeds the sum of $5,000.

IV

Defendant admits that plaintiff owns and operates plants and properties located in Vigo, Warren, Fountain, Morgan, Tippecanoe, Parke, Putnam, Owen, Clay, Greene and Sullivan Counties, Indiana, utilized by it in the production, transmission and distribution of electricity and the [fol. 93] sale thereof to cities and towns and to the public.

Defendant admits that plaintiff owns electric power plants at the cities of Martinsville, Spencer, Sullivan, and Clinton, Indiana, but denies that said cities are served by said plants, and says plaintiff serves said cities with electricity generated elsewhere; that said plants at Martinsville, Spencer, Sullivan and Clinton are not used or useful in the business of plaintiff in furnishing electricity to the City of Martinsville and to its inhabitants; that said plants have been almost altogether idle since plaintiff acquired the electricity utility properties in said cities of Martinsville, Spencer, Sullivan and Clinton.

Defendant admits that plaintiff purchases electric current from the Indiana Electric Corporation and that it sells current to, and sometimes purchases current from, the Illinois Power & Light Company, Interstate Public Service Company, Northern Indiana Power Company, and the Attica Electric Company, and that it sells electricity to the cities of Covington, Veedersburg and other municipalities for resale by them to their inhabitants over their own distributing systems;

Defendant admits that the aforementioned companies have contracts and interconnections with each other for the purpose of making available the electric power of the several companies to each of said companies, and defendant says that said companies are owned, managed and operated in common.

[fol. 94] V

Defendant admits that on March 16, 1927, seventeen citizens of Martinsville, electric patrons of plaintiff at said

city, filed their petition with the Public Service Commission of Indiana for a reduction of electric rates at Martinsville; that on said date plaintiff had on file with said Commission, and was collecting at Martinsville, certain tariffs, schedules and rates for its services, but defendant denies that the same did not yield a net revenue in excess of a fair return upon the property of plaintiff used and useful in rendering such service to the city of Martinsville and to its inhabitants, and defendant says that said rates did at said time yield more than a fair return on such property.

Defendant admits that plaintiff put in effect new rates at Martinsville on July 1, 1927, but denies that said rates reduced plaintiff's gross revenue at Martinsville during the following year in the sum of $11,469.00 below the revenue the old rates would have produced.

Defendant admits that on January 26, 1929, said Commission by its order fixed the rates to be charged at Martinsville by plaintiff as the same are shown in the schedule set out in paragraph V of plaintiff's bill of complaint.

Defendant admits that plaintiff's petition for a rehearing of the cause in which said order was issued was over-[fol. 95] ruled by said Commission on February 15, 1929, and that exhibits "A" and "B" to plaintiff's bill of complaint are copies of said orders of said Commission.

VI

Defendant denies that on the 26th day of January, 1929, plaintiff owned property used and useful in the generation, transmission, distribution and sale of electricity that had a value of $5,026,437.59 or more; that defendant does not know whether in the year 1928 plaintiff's gross revenue was $1,691,154.84, and therefore calls for the proof thereon. Defendant denies that in the year 1928 the total operating expenses of plaintiff was $1,412,320.63 and says that said expenses were less than said figure; that the balance for said year available for return was more than $278,834.21; and defendant denies that the revenues available for return in 1928 were inadequate, or unfair or unreasonable to plaintiff.

Defendant does not know what the rates in effect at Clinton and Greencastle were or now are or what effect the

rates there in force now would have had on plaintiff's revenue in 1928, and calls for the proof thereon.

Defendant denies that the rates fixed by said Commission are confiscatory and that they take plaintiff's property without due process of law, and that they violate plaintiff's rights under the Fourteenth Amendment to the Constitution of the United States.

[fol. 96] VII

Defendant admits that said Commission found that the cost of electricity at the "gateway" at Martinsville, including an allowance which would produce a fair return on plaintiff's general power system, is $.0172 per KWH; that it fixed the fair value of plaintiff's local property at Martinsville used and useful for distributing current in Martinsville at $87,000; Defendant says that said valuation was not based on the sole testimony of the Commission's engineer, but was based on all of the evidence in the case, and defendant says that said value is not too low for the fair value of said property as a rate base; that no cash working capital was included in said fair value figure because adequate provision for such capital had been made by said Commission in relation to plaintiff's general business; that said Commission did include working capital in the form of material and supplies at Martinsville in the amount of $6,566; that the Commission's order refused a separate allowance for current depreciation because plaintiff, under the terms of its mortgage, was already providing an adequate fund for depreciation purposes; that the Commission found the value of said property as of November 30, 1927, and added all additions made to that date; that plaintiff did not request, before said order was issued, that the Commission make further provision for additions in its finding of fair value; defendant denies that the rates fixed by the Commission will not yield a return of 7% on $87,000, and says that they will yield such return.

[fol. 97] VIII

Defendant denies that the actual cost of current delivered at the gateways and sold to allied companies was $.0184 per KWH on Jan. 26, 1929 and during the year of 1928,

and denies further that such cost was $.024996 per KWH at such gateways exclusive of said allied companies. Defendant denies that the charge of $.0172 per KWH used in fixing said rates is confiscatory of plaintiff's power system property and that it takes said property without due process of law and that it violates plaintiff's rights under the Fourteenth Amendment of the Constitution of the United States.

IX

Defendant denies that the sum of $363,225.72 is required to make a fair return on the fair value of plaintiff's general power system property and to provide a reasonable depreciation charge on the depreciable property; defendant denies that the method used, and the provision made, by the Commission for a fair return of plaintiff's power system property allocable to Martinsville is arbitrary, unreasonable or in denial of due process of law.

Defendant denies that the fair value of the power system property as of Dec. 31, 1928, was $3,360,999.16, and defendant denies that a fair return thereon is 8% or $269,437.93; defendant denies that as of Dec. 31, 1928, the cost of reproduction new of plaintiff's depreciable power system property was $2,778,864.16, and denies that a fair rate of depreciation thereon is 4%, or $111,433.57, and denies further that the required depreciation and return is $380,871.50.

[fol. 98]

X

Defendant denies that said Commission acted arbitrarily or in denial of due process of law in fixing said rates. Defendant denies that said Commission refused to make an allowance for current depreciation, and says that said Commission expressly found in its order that the "gateway" cost of electricity at $.0172 per KWH "includes production cost, depreciation and return."

Defendant denies that plaintiff's rates have been inadequate to create a depreciation reserve, but says that under the provisions of Article V of a mortgage on plaintiff's property plaintiff has expended or set aside for maintenance and depreciation out of its gross earnings annually a sum equal to 12½% of its gross earnings, that plaintiff has charged items properly chargeable to depreciation to maintenance, and has, under said mortgage provision, used part of said 12½% fund for new construction.

XI

Defendant denies that said Commission in determining said rates arbitrarily and unreasonably and in denial of due process of law failed and refused to include or recognize working cash capital as a part of the fair value of plaintiff's property; defendant says that such element was not included in the value of the local property at Martinsville and that this omission was proper because said property is not locally managed or operated, but is managed and operated out of plaintiff's general office elsewhere and as a part of plaintiff's general business; that as to plaintiff's [fol. 99] property generally said Commission did recognize working cash capital and had that element and a fair return on it as a part of plaintiff's power system property in view when it calculated the "gateway" cost of electricity at Martinsville at $.0172 per KWH.

XII

Defendant denies that it was unfair and unreasonable to determine the "gateway" cost of electricity at Martinsville from the average cost of all electricity sold and delivered by plaintiff; defendant denies that, in order to determine a fair gateway price, sales to the Attica Electric and Northern Indiana Power companies should be eliminated from revenue, and denies that $.024996 is a fair gateway charge in an inquiry of what are just and reasonable retail rates to be charged to consumers at Martinsville.

Defendant admits that during the year ending July 31, 1927 plaintiff delivered 2,180,124 KWH to the Martinsville Gateway for Martinsville consumers; 30,122,656 KWH to the several municipal "gateways"; and 21,335,114 KWH to the Attica Electric and Northern Indiana Power companies.

Defendant does not know the quantities of electricity delivered by plaintiff during the calendar year of 1928 and therefore neither affirms nor denies plaintiff's allegations as to such quantities and calls for the proof thereon. Defendant denies that a 66,000 volt line is needed to serve local customers of defendant.

[fol. 100] Defendant denies that in relation to the inquiry of a fair gateway charge at Martinsville 1¼ cents per KWH is a fair and reasonable charge for the electricity

sold by plaintiff to allied companies; defendant says that said price is unfair and unreasonable in relation to the charge that would have to be made for electricity at the municipal "gateways" in order to provide revenues to meet the expenses and requirements for return of the general power system; defendant says that approximately two-fifths of plaintiff's business consists of buying electricity and selling it to allied companies and that the cost of conducting that portion of the business is inextricably involved and included in the cost of conducting plaintiff's entire power system business, so that it would be unfair to the patrons at Martinsville and at other municipalities in plaintiff's system to attempt to segregate the business relating to the sale of electricity to allied companies and charge a much higher "gateway" price at municipalities than plaintiff charges at its allied company "gateways."

XIII

Defendant admits that the Commission computed the "gateway" cost at Martinsville at $.0172 per Kw. H. on the basis of figures for the year ending July 31, 1927, but denies that $.021 would be required during that period to provide revenues for proper operating expenses, depreciation and return on plaintiff's general power system property, and denies that for the same purposes a charge [fol. 101] of $.0184 would be required for the calendar year of 1928. Defendant denies that a gateway charge of $.0270747 for 1927, or $.024996 for 1928 represent fair and proper average gateway costs for those periods.

XIV

Defendant denies that plaintiff's used and useful local property at Martinsville was of the fair value of $141,520.38 on Dec. 31, 1928.

Defendant denies that plaintiff sustained an operating deficit of $1,575.32 or in any other amount at Martinsville during 1928, and denies that the cost of said business in 1928 was $96,680.79. Defendant does not know whether the gross revenue for 1928 at Martinsville was $95,105.47, and therefore calls for the proof thereon.

Defendant denies that the rates fixed by the Commission, if in force during 1928, would have reduced revenues in the

sum of $14,566.33 or would have caused an operating deficit of $16,141.65 or any other amount; defendant denies that if gateway charges of $.0184 were applied at Martinsville the rates fixed by the Commission would yield only $421.73 for return on the Martinsville property, and denies that if such charge were $.0172 only $3,435.08 would have been yielded for return.

Defendant denies that according to the method used, by the Commission to fix said rates the same are inadequate, unfair and unreasonable or confiscatory or violative of any [fol. 102] rights of plaintiff under the Fourteenth Amendment of the Constitution of the United States.

XV

Defendant denies that the rates in force at Martinsville prior to January 26, 1929 will not yield more than a fair return on plaintiff's used and useful property at Martinsville, and denies that the revenues from said rates together with plaintiff's other revenues will yield less than a fair return on the fair value of plaintiff's property generally.

Defendant does not know whether the rates at Martinsville prior to January 26, 1929 were lower than at other cities served by plaintiff, and calls for the proof thereon. Defendant denies that it is more expensive to serve the people at Martinsville than elsewhere, and says it is immaterial what the cost of manufacturing electricity locally at Martinsville would be.

XVI

Defendant denies that plaintiff has no adequate remedy at law, and says that a legal remedy is provided to plaintiff by the statutes of Indiana for contesting the validity or reasonableness of said rates in State Courts.

XVII

Defendant denies that plaintiff is in need of immediate relief, and denies that it is entitled to permanent relief [fol. 103] from said order of the Commission.

Wherefore defendant, City of Martinsville, in its own behalf and in behalf of all other users of electricity furnished by plaintiff in the City of Martinsville, prays that plaintiff be denied all relief prayed for in its bill of com-

plaint herein, that said bill be dismissed and that defendant recover judgment for its costs herein and for all other proper relief.

Ralph K. Lowder, Arthur L. Gilliom, Solicitors for Defendant City of Martinsville.

[fol. 104] IN UNITED STATES DISTRICT COURT

TEMPORARY INJUNCTION—April 6, 1929

Comes now the plaintiff, by Fesler, Elam & Young, its solicitors, and also come the defendants, by James M. Ogden, Attorney General of Indiana, and this cause came on to be heard by the Honorable Samuel Alschuler, Judge of the United States Circuit Court of Appeals for the Seventh Circuit, the Honorable Robert C. Baltzell, Judge of the District Court of the United States for the Southern District of Indiana, and the Honorable Thomas W. Slick, Judge of the District Court of the United States for the Northern District of Indiana, upon plaintiff's application for a temporary injunction pending final hearing and determination herein, and thereupon, upon consideration thereof, and with the consent of the defendants, it was ordered, adjudged and decreed by the Court that pending final hearing and determination of this cause, the electric rates and charges for the City of Martinsville, fixed by the Public Service Commission of Indiana in its order of January 26, 1929, herein complained of, be and they are hereby suspended, and the defendants, and each of them, be and they are hereby restrained and enjoined from enforcing or attempting to enforce said rates and charges fixed by said order complained of, and from interfering with the enforcement and collection by plaintiff of the rates and [fol. 105] charges to the City of Martinsville established by plaintiff and in effect immediately prior to the date of said order of the Public Service Commission of Indiana complained of, all upon the condition, however, that in the event the electric rates and charges for the City of Martinsville fixed by said order complained of become effective upon final hearin gand determination herein, the plaintiff shall refund to its customers respectively, or credit to

their respective accounts, any sums collected by plaintiff in excess of said rates and charges complained of.

[fols. 106-110] IN UNITED STATES DISTRICT COURT

ORDER OF REFERENCE TO SPECIAL MASTER—June 3, 1930

Come now Honorable Samuel Alschuler, Judge of the United States Circuit Court of Appeals for the Seventh Circuit, Honorable Robert C. Baltzell, Judge of the District Court of the United States for the Southern District of Indiana, and Honorable Thomas W. Slick, Judge of the District Court of the United States for the Northern District of Indiana, as a statutory court organized for the purpose of hearing and determining this cause.

Also come the parties by their respective counsel, and upon the representation of counsel for the plaintiff that the trial of this cause will require from four to six days, said court, upon its own motion, now orders that Albert Ward, be and he is hereby appointed Special Master in the above entitled cause, and said cause is now hereby referred to him as such Special Master to hear the evidence and report same together with his findings of fact and conclusions of law thereon to this court.

[fol. 111] IN UNITED STATES DISTRICT COURT

[Title omitted]

SPECIAL MASTER'S REPORT—Filed July 2, 1931

To the honorable. Samuel Alschuler, Robert C. Baltzell, and Thomas W. Slick, Judges, organized as a statutory court for hearing and determining this cause:

The undersigned, Albert Ward, who was appointed Special Master in the above entitled cause on June 3, 1930, to hear the evidence and report same, together with his findings of facts and conclusions of law thereon, to this Honorable Court, now respectfully submits the following report containing the finding of facts and conclusions of law stated

thereon by him, and which he now presents as his report as Special Master in the above entitled cause.

[fols. 112-115] The eivdence was all taken and heard in the Law Library Room of the Federal Building in Indianapolis, Indiana, beginning September 2, 1930 and was concluded September 19, 1930. Argument was heard on December 18 & 19, 1930.

Appearances:

The Plaintiff appeared by James W. Fesler, Esq., Harvey J. Elam, Esq., Howard S. Young, Esq., Glenn Van Auken, Esq., and Silas C. Kivett, Esq., its Attorneys.

The Defendants appeared by George W. Hufsmith, Esq., Deputy Attorney General of the State of Indiana. The City of Martinsville, Indiana, appeared by Arthur L. Gilliom, Esq., and Ralph K. Lowder, Esq., its Attorneys.

Finding of Facts

* * * * * * *

[fol. 116]

V

The plaintiff owns and operates an interconnected system of electric plants and properties in a territory lying in Western Indiana and comprised of eleven counties, namely, Sullivan, Greene, Owen, Clay, Vigo, Parke, Putnam, Morgan, Fountain, Warren and Tippecanoe, utilized by it in the production, transmission and distribution of electrical current and the sale thereof to cities and towns and the public in general in said counties.

Plaintiff's said system in turn interconnects with the electric property systems of six other companies named in Finding No. 9 herein, which give service in large areas in the State of Indiana.

More than 99% of the stocks, bonds and other securities of these seven companies is owned by a corporation known as the Central Indiana Power Company. These affiliated companies have common officers and a common management and the interconnected properties of these companies are planned, constructed and operated as one large system, although each acts independently, except as herein set out. Such interconnections make it possible to form loops

whereby electricity may be served from the same generating equipment, which enables the plaintiff, if a section of line is out, to feed current around the loop the other way, thus making continuous service possible.

This affiliated system is itself connected with other large power systems by means of which connections the affiliated system has access to large supplies of power generated at large generating plants.

[fol. 117] By order of the common management of these seven affiliated companies an arrangement exists among them for the interchange of power. Balances resulting from such exchange of power are settled for on the basis of 1¢ per K. W. H.

The electric plants and properties of plaintiff consist chiefly of transmission, transformation and local distribution properties. It owns and operates power plants in the cities of Martinsville, Sullivan and Clinton, Indiana and furnishes electric service to said cities; these plants were built by former owners to generate power for distribution in those cities and were not constructed as a part of plaintiff's interconnected system, although they are now connected with the affiliated system and are only occasionally operated for the purpose of manufacturing power for the pool in the affiliated system; they are never operated for the exclusive benefit of plaintiff's own system.

The plaintiff purchases almost all of its power from said Indiana Electric Corporation, which has a large and modern generating plant known as the Dresser Plant located on the Wabash River in Vigo County and which is to the South of, but in close proximity to, part of the territory served by the plaintiff and in which it operates; much of the power thus purchased by plaintiff is delivered over its transmission lines to affiliated companies whose properties are North of plaintiff's territory; the plaintiff does not sell any electrical current to said Indiana Electrical Corporation. The plaintiff does sell electricity to the Illinois Power & Light Company, Interstate Public Service Company, Northern Indiana Power Company and Attica Electric Company and purchases electricity from time to time from said last named corporations.

[fol. 118] Of the power delivered by plaintiff within its own system, some of it is sold and delivered by the plaintiff

to the cities of Covington and Veedersburg, Indiana, and other municipalities, for re-sale by such municipalities over their own distribution systems to their inhabitants.

Plaintiff supplies electricity to approximately 18,000 individual customers scattered throughout the eleven counties hereinbefore named.

The purchases and sales of electrical current by plaintiff from and to said Illinois Power & Light Company, Interstate Public Service Company, Northern Indiana Power Company and the Attica Electric Company are made pursuant to an arrangement between the plaintiff and such other companies providing for the interchange of current as hereinbefore set out and which makes available to the communities and customers served by the plaintiff all power plants, facilities and resources of such connecting utilities for regular or emergency supply.

The plaintiff supplies electrical current to approximately fifty cities and towns in the counties above set out and also supplies electrical current to numerous industrial plants and individual customers not located within the corporate limits of cities and towns.

The plaintiff furnishes electric service to the inhabitants of the city of Martinsville over its local distribution system with current coming from its interconnected power system property.

In addition to the electric properties owned by the plain-
[fol. 119] tiff, it also owns and operates a few small gas and water plants, but the rates for gas and water furnished by means of such plants are not involved in this proceeding in any way, are not included herein in any manner, except as it may be necessary to allocate certain general operating expenses occasioned in part by such gas and water plants, and all references herein as to property, income, cost, or otherwise of plaintiff's property, except for such allocation of general operating expenses, shall apply to and include plaintiff's electric property and electric business as is distinguished from any and all of its gas and water plants.

[fols. 120-122] VI

On March 16, 1927 seventeen citizens of the City of Martinsville, Indiana, electric patrons of the plaintiff at Martinsville, filed with said Public Service Commission of Indiana their petition asking for a reduction of electric rates

in Martinsville, Indiana. On said date plaintiff had on file with the Public Service Commission of Indiana tariffs, schedules and rates for its service, and while said petition was pending plaintiff filed a new schedule of rates and charges for Martinsville, which became effective July 1, 1927; that said petition remained on file and from time to time thereafter hearings were held upon the same and on January 26, 1929 said Public Service Commission of Indiana made and approved an order and fixed and designated therein schedules of rates and charges to be put into effect by plaintiff upon all billings for service rendered by it at Martinsville on and after February 1, 1929, which said schedules of rates and charges thus made by said Commission are as follows:

"Here appears the schedule of rates contained in the order of Jan. 26, 1929, attached to the bill of complaint as Exhibit A."

[fol. 123] On February 7, 1929 plaintiff filed with said Public Service Commission its petition asking for a rehearing of said cause, which said petition was overruled, rehearing was denied and a supplemental order made and entered by said Public Service Commission in said cause and approved February 15, 1929.

That there is attached to the plaintiff's bill herein a certified copy of said order of said Public Service Commission dated January 26, 1929, is expressly made a part of said bill and is marked and known as Exhibit "A" therewith; that there is also attached to and made a part of the plaintiff's bill herein a certified copy of said supplemental order of said Public Service Commission dated February 15, 1929, which is marked as Exhibit "B" with said petition.

Exhibit No. 12-A is said original order approved January 26, 1929, and Exhibit No. 12-B is the supplemental [fol. 124] order approved February 15, 1929, both of which were introduced in evidence.

The rates and schedules hereinabove in this finding set out are the rates and schedules complained of by the plaintiff in its bill herein, and alleged by it therein to be confiscatory of its property used and useful in furnishing electric service to cities and towns and the public in general.

[fol. 125] VII

The Public Service Commission, in determining and fixing the rates and schedules set out in finding No. six, after hearing evidence thereon, found that the fair value of plaintiff's local property at Martinsville used and useful for the distribution of current in Martinsville was Eighty Seven Thousand ($87,000.00) Dollars as of November 30, 1927. In arriving at such value, the Commission did not include therein the allowance of any sum or amount for working cash capital; it did include and allow therein the sum of $6,566.00 for materials and supplies: it refused to allow any additional amount for working cash capital for the reason that it had theretofore granted authority to the entire Wabash Valley Electric system to procure working capital by the issuance of preferred and common stock, and that the Martinsville Electric Company was a part of the system for which said preferred and common stock were sold to provide such working capital, and for the further reason that it regarded said sum of $6,566.00 as an allowance sufficiently adequate to cover the item of working cash capital. In fixing said value of $87,000.00 the Commission made no allowance to the plaintiff for additions to plaintiff's local property at Martinsville between November 30, 1927 and January 26, 1929. The Commission made no separate allowance for depreciation, either upon the Martinsville local property or power system property or the property as a whole for the reason assigned by it that under the terms of a mortgage theretofore given by the plaintiff upon its entire property it was required to set up on its books from the earnings a reserve amounting to 12½% of the gross revenues obtained from all sources except income securities. Its conclusion was based upon Article V of said mortgage, which recites that

"All expenditures made by the company during any of such years properly and ordinarily chargeable to mainte-
[fol. 126] nance and depreciation of its property shall be charged on the books of the company to maintenance and depreciation, and the aggregate amount so expended for maintenance and depreciation by the company in any such year shall be treated as a credit to the fund for such year."

Upon the foregoing provision of said mortgage the Commission concluded that maintenance and depreciation

charges were covered in said 12½% provision of the mortgage, and accordingly made no allowance for depreciation.

[fol. 127] VIII

In fixing and determining the rates and schedules set out in finding No. Six, the Commission established such rates and schedules for the City of Martinsville as a separate segregated unit and concluded that the distribution system at Martinsville should be considered separately from the power system and the general system of distribution of the plaintiff, and found that the fair rate of charge, by the general system of plaintiff to the City of Martinsville, for electrical energy furnished at the "gateway" of said city for service therein, is $.0172 per K. W. H. The Commission further concluded that the rates and charges thus established by it would be adequate to meet the requirements of the company for rendering service to Martinsville and yield a 7% return on the fair value of the company's property.

On the matter of depreciation, the Commission concluded as follows:

"Demand by respondent for allowance for depreciation is met, as shown by respondent's statement filed, by provision in Article V of mortgage on the utility property, in which 12½% of certain gross revenues of the company is set aside to be used for maintenance, depreciation and improvement. For this reason no additional allowance for depreciation should be made."

[fol. 128] IX

When the Wabash Valley Electric Company first began to operate, it bought some of its electricity from other companies and manufactured some with small individual plants; it began operating at a time when electricity was generated in small isolated generating plants located in, and many times owned by, the community served; at that time there were a great many municipal corporations, coal mines and other industries which were then operating their own plants and each one thus operating was a natural unit in itself; there were no inter-connections between such generating plants in the different communities and ordinarily no outside help was possible in emergencies; during the past few years this practice has been changed, with the rapid increase

in the industrial load placed upon such local generating plants, and at the time the petition herein was filed, and subsequent thereto, many of such municipalities, coal mines and other industries had abandoned the practice of manufacturing their own current and were buying their electrical power from the plaintiff, to the extent that over 50% of the K. W. H. sold by plaintiff on its meters to its customers is in fact sold and furnished to coal mines and other industries, which are entirely outside of municipal boundaries.

In the past few years it has been the general practice of electrical engineers to locate and build very large generating plants upon large bodies or flows of water, and where fuel is cheaply and certainly available, and then transmit the electricity generated at such plants over high voltage lines to ultimate consumers scattered over large areas, and whenever it is commercially expedient and such inter-connections can be made, such systems are thus connected for the purpose of avoiding duplication of investment and enabling [fol. 129] each system to act as reserve for the others in case of emergency. This is regarded as good practice among utility owners, for the reason that where a company which is dependent solely upon its own generating resources, it must use reasonable foresight in protecting or insuring service to its customers, which requires that it have a reserve capacity available to take care of emergencies which occur when the plant is down from time to time, and standard practice requires that such company should have an excess capacity available from some source. Such inter-connections of systems allows the different companies involved therein to stand by, each for the other, and does not require each individual company to have the amount of reserve that it would otherwise be obliged to provide for; such inter-connections are also advantageous in the way of building loops whereby electricity may be served from the same generating plant in different directions, and if there is a section of line out, it is possible to feed around the loop, and in case it is necessary to take out lines and fix insulators and other repairs it makes it possible to give continuous service. It is also recognized as the best practice for such inter-connecting companies to obtain their supply of electricity from large generating units whenever that is possible. Conformable to this accepted and recognized plan of generating, transmitting and distributing electricity, a large generating plant known as the

Dresser Plant was built in the midst of the Indiana coal field on the Wabash River near Terre Haute, Indiana by the Indiana Electric Corporation. This plant has a generating capacity of over 300,000,000 K. W. H. per year.

[fol. 130] In order to finance the plant it was necessary to assemble a group of electric properties with sufficient load and income to make the project commercially expedient. Thereupon existing electric utilities scattered throughout Central Indiana were acquired by affiliated corporations and these properties were connected with the Dresser Plant in order to build up a demand on that plant comparable to its capacity, and sufficient to permit its economical operation. Among these affiliated corporations were the Wabash Valley Electric Company, plaintiff herein, the Attica Electric Company, Colfax Electric Company, Indiana Electric Corporation, Northern Indiana Power Company, Moran Electric Light & Power Company and the Mulberry Light & Power Company, the combined demands of said several corporations, and others not affiliated, aggregating approximately the capacity of the Dresser Generating Plant. The Wabash Valley System alone would not require electricity sufficient to make it possible to build or operate such a generating plant as the Dresser Plant and it is necessary that the Dresser Plant serve not only the customers of the Wabash Valley System, but the customers of such other affiliated utilities, and certain utilities not affiliated.

The City of Martinsville is served with electricity by the plaintiff as a part of the entire Wabash Valley System, which system is enabled to have the benefit of the generation of electricity in large units, because of its hook-up with such other corporations similarly organized and which draw upon the same large generating source.

[fol. 131] The plaintiff introduced in evidence its Exhibit No. 1, a map of the State of Indiana, and upon which is indicated in green lines the property which is owned and operated by the plaintiff and used by it in the distribution of electricity. Its distribution system is connected with and has available electrical current from large generating plants, in addition to the Dresser Plant, as follows; a large steam plant known as the Twin Branch Plant, located at South Bend, Indiana, a plant near the southeast corner of Indiana known as the Columbia Plant, and in 1930 it ac-

quired a connection with a large plant near the Indiana-Illinois State Line on Lake Michigan known as the State Line Plant, and which is supplemented by a new plant at Michigan City, Indiana. The State Line Plant has a generating capacity of 200,000 K. W.

The plaintiff has a 66,000 volt line extending from Clinton, Indiana to Lafayette, Indiana and there connects with the line of the Northern Indiana Power Company and plaintiff delivers current to, and receives current from, said last named company at Lafayette, and also obtains some current from the Hydro Electric Company at Lafayette. Through this connection the capacity of the Twin Branch, State Line and Michigan City plants is made available to plaintiff and others connected with the Dresser Plant.

The 66,000 volt line from Clinton to Lafayette not only transports electrical current from Clinton to Lafayette, but it serves the towns along its line, including a sub-station at Cayuga, Covington, Veedersburg, Attica and Newton and also serves customers of plaintiff in said places. This line is economically advantageous in the operation of plaintiff's system.

The plaintiff has no generating plants of its own except at Clinton, Sullivan and Martinsville, Indiana. These [fol. 132] plants are not operated continuously, but when it is necessary during a time of maximum load on the system for the plaintiff to have additional power such plants are steamed up and put in service for system convenience and necessity, not, however, for the city in which they are geographically located. There are times when additional current is needed only for a short period of time, such as occurs in the Fall of the year when the lighting load comes on before the power load goes off and consequently the load pyramids, and in which event these individual generating plants can be operated to an economical advantage.

[fol. 133] X

The tangible property which plaintiff contends to be used and useful in serving Martinsville, consists, in a general way, of the three generating plants hereinbefore referred to, including land, buildings and equipment, having a total

available generating capacity of 4,650 K. V. A.: 350 miles of high voltage transmission lines: 135 miles of low voltage transmission lines: 52 high voltage substations: 39 low voltage substations: 61 distributing systems: 46 rural distribution systems and 16930 meters in service; see Exhibit No. 7, Page 1.

[fol. 134] XI

A large amount of testimony was introduced as to the value of all of the property of the plaintiff. Exhibits Nos. 2-A to 2-F, both inclusive, describe minutely and in great detail the various items of property of the plaintiff which the plaintiff contends is used and useful by it in serving current to Martinsville. These exhibits were prepared by Spooner & Merrill, Inc., consulting engineers, at the request of plaintiff. These several Exhibits correctly inventory all of the property of the plaintiff which it claims is used and useful in connection with its service to Martinsville, as of September 1, 1927, and then revised and brought down to May 1, 1930. These Exhibits are likewise an appraisal of all of said property by Spooner & Merrill, based upon costs of reproduction as of May 1, 1929.

Exhibit 2-A is a true and complete inventory of the generating property of the Wabash Valley Electric Co. as of September 1, 1927; it is also an appraisal of such property by Spooner & Merrill based upon reproduction costs as of May 1, 1929.

Exhibit 2-B is a true and complete inventory of the property of plaintiff making up its high voltage system as of September 1, 1927: it is also an appraisal of the same property by Spooner & Merrill based upon reproduction costs as of May 1, 1929.

Exhibit- No-. 2-C, 2-D, 2-E and 2-F are respectively true and complete lists of plaintiff's property going to make up part of the distribution system and additional property going to make up the additional part of the distribution [fol. 135] system, the property making up the low voltage system and the property included in the general office stores of the Wabash Valley Electric Company as of September 1, 1927, and an appraisal by Spooner & Merrill of the same property, based upon reproduction costs as of May 1, 1929. The appraisal in the several Exhibits does not include general overheads and intangible values of the property. Ex-

hibit No. 2-G is a Summary of plaintiff's property inventoried as of September 1, 1927, appraised with May 1, 1929 prices, deducts retirements and includes book additions to May 1, 1930. The foregoing Exhibits also contain some property owned by plaintiff which is not claimed by it to be used or useful in furnishing current to Martinsville, and is shown in Exhibit 2-G as being appraised and valued by Spooner & Merrill as $102,309.

Spooner & Merrill, in making their appraisal, divided the property into local property and power system property. They explained that power is handled, on a local distribution, ordinarily, at a voltage of around 2300, which is customarily referred to as primary voltage. It may vary in some instances and be 6600 volts, or, in some isolated instances, to be a secondary voltage of 110 volts. Many different cities are served by transmission lines which bring power to them, some of such lines being 66000 volts, some 33000 volts and some as low as 2300 volts. In making their allocation they considered that the municipality served was not concerned in the voltage or the manner of delivery to it, as long as the source of supply was adequate and the service rendered was sufficient. Such transmission lines are primarily constructed for the convenience of the company, [fol. 136] that is, if the company finds it necessary to transport a large amount of power long distances it will build a relatively high voltage line: high voltage lines are expensive: sub-stations stepping up to, and down from, high voltage involve large expenditures of money: for the convenience of the company power is transmitted by certain methods and by certain lines. A line may be built directly to a municipality from some other place, through intervening towns, or around another town and spur lines built to conduct electricity to such town, these matters being largely controlled by the topography of the territory served and the roads along which it is economical to build such lines: it is a matter of company management. The line drawn, therefore, by Spooner & Merrill between so-called power system and local electrical property is at the point where the power is delivered to any particular locality, regardless of the voltage or the character of transmission by which it is gotten there.

Mr. Schiez, Vice President of plaintiff and charged with the duty of accounting, prepared Exhibit 21, and the fol-

lowing figures taken therefrom correctly reflect the opinion of Spooner & Merrill as to the value of plaintiff's property as indicated in the following tabulation:

	New	Depreciated
Power system physical property as of Sept. 1, 1927	$2,684,365	$2,485,123
Net additions and betterments 9/1/27 to 12/31/28	94,499.16	94,499.16
	2,778,864.16	2,579,622.16
Land	6,975.00	6,975.00
	2,785,839.16	2,586,597.16
To this they add:		
Materials and Supplies		120,980.00
Fuel		5,000.00
Working Cash		117,807.00
Cost of Financing		111,693.00
Going value (15% of $2,792,814.16)		418,922.00
		$3,360,999.16

See page 5 of Exhibit 21.

[fol. 137]

Their appraisal of entire physical property is as follows: Sept. 1, 1927	$3,902,628.00	$3,567,219.00
Additions and Betterments: 9/1/27 to 12/31/28	313,638.59	313,638.59
	$4,216,266.59	$3,880,857.59
To which they add:		
Materials and Supplies		184,000.00
Fuel Stock		5,000.00
Working Cash		155,500.00
Cost of Financing		168,640.00
Going concern (15% of $4,216,266.59)		632,440.00
		$5,026,437.59

See page 6 of Exhibit 21.

Mr. Schiez also prepared Exhibit 22 and from which I set out the following tabulation as correctly reflecting the opinion of Spooner & Merrill as to the value of plaintiff's property:

Value of Power System Property, including additions and betterments to April 30, 1930.		
Physical Property, total	$3,088,093.00	$2,838,386.00
Add		
Materials and Supplies		90,000.00
Working Cash		127,352.00
Going Concern (15% of $3,095,281—Land $7,188 deducted)		464,292.00
Cost of financing		117,620.00
		$3,637,650.00

See page 10 of Exhibit 22.

Total value with additions and betterments to April 30, 1930. Local property, including:		
Martinsville	$1,699,078.00	$1,513,366.00
Power System	3,095,281.00	2,838,386.00
	$4,794,359.00	$4,351,752.00
Add to Depreciated:		
Materials and Supplies		140,000.00
Working Cash		163,000.00
Going Concern (15% of $4,794,359.00)		719,154.00
Cost of Financing		182,185.00
		$5,556,091.00

See page 12 of Exhibit 22 and page A of Exhibit 2-G.

Spooner & Merrill find the value of Martinsville local property to be as follows: (May 1, 1930 inventory with May 1, 1929 prices)

[fol. 138]

	New	Depreciated
Land, Structures and Equipment at Martinsville Plant for local Martinsville use only	$12,475	$10,936
Distribution System	95,865	85,193
General Equipment allocated to Martinsville Electric	5,412	4,530
	$113,752	$100,659
Material and Supplies		10,000
Working Cash		3,358
Going Concern Value		17,063
Cost of Financing		4,322
		$135,402

See Exhibit 2-H, page (A).

[fol. 139] XII

Exhibit No. 7 is a detailed appraisal of the Electric Property of the Wabash Valley Electric Company claimed by it to be used and useful in serving Martinsville, made by Stone & Webster Engineering Co., at the request of plaintiff, such appraisal expressing the opinion of said company as to the cost to reproduce all of said property, and its value new, less depreciation, as it existed April 30, 1930, based upon prices prevailing May 1, 1929. In the opinion of Stone & Webster Engineering Corporation, as shown by said Exhibit No. 7, these values would be as follows:

Cost to reproduce new	New less Depreciation
$5,935,138	$5,828,507

Their appraisal is predicated upon the detailed inventory of Spooner & Merrill, as the property existed on Sept.

1, 1927, adjusted to April 30, 1930, by the deduction of property retired during the intervening period, the addition of property acquired or constructed since the date of the original inventory, and the elimination of property not used or useful for electric purposes. The estimate of structural cost and the unit cost used in arriving at such estimate was prepared, in the first instance, by Spooner & Merrill, but reviewed by Stone & Webster to an extent sufficient, in their opinion, to enable them to form a judgment as to their propriety. They concluded that the unit prices of Spooner & Merrill were, as a whole, low enough to indicate the necessity for a reasonable allowance for general contingencies, and they included such an item. Their estimate as to Structural Cost is based on the assumption that it is intended to include all direct charges for material and [fol. 140] labor, together with such indirect charges as the company would be called upon to make to a general contractor. They assumed that the physical property of the company would be reproduced in its entirety by a general contractor operating under the supervision of the company's organization. They made an allowance for General Construction Costs, which included Engineering and Taxes, Administrative and Legal Expense, and Interest during construction: they allowed for Cost of Organization, Working Capital, Cost of Financing, Going Value and Depreciation. In my opinion their unit prices are too high and the amounts added thereto for General Construction Costs is unwarranted; their allowance for Organization, Working Capital, Cost of Financing, and Going Value, is believed to be exorbitant and unreasonable in each case, and I have, therefore, not adopted their opinion as to the value of plaintiff's property, either as to its cost to reproduce new, or new, less depreciation.

[fol. 141] XIII

The property which Spooner and Merrill treat as Martinsville Local Property and value at $135,402.00, is described in detail in Exhibit 2-H. Substantially the same property is contained in defendants' Exhibit 100, prepared by Hugh W. Abbett, Commission engineer, at the request of and for the defendants, except in Exhibit 2-H Spooner and Merrill allocated an amount of $1,169.00 to Morgantown transmission line, whereas, in Exhibit 100 this item is

included as being a part of Martinsville local; otherwise the two exhibits relate to substantially the same property. Exhibit 100 is a correct inventory of Martinsville local property as of May 1, 1930, and the unit prices therein are predicated upon prevailing current prices as of May 1, 1930.

The commission appraisal made by Mr. Abbett, exclusive of working capital and going value, is (New) $86,845, (Depreciated) $72,757. To this last figure Mr. Abbett added $2,968 for cash working capital and materials and supplies and $7,275 for going value, making a total appraised value (depreciated) of $83,000. This does not include any part of the generating plant at Martinsville. Spooner and Merrill added $10,936 to their appraisal of Martinsville local property as the allocable part of the generating plant which they thought should be treated as local property. Mr. Abbett thought the entire generating plant should be treated as power system property and, therefore, did not include any part of its value in his appraisal of Martinsville local property. If this item were added to Mr. Abbett's appraisal of the local property his appraisal would be $93,936.

See Exhibit 100, page B, and Exhibit 101.

[fol. 142] XIV

Martinsville Local Property as detailed in Exhibits 100 and 2-H, and also the Power System Property of plaintiff set out in Exhibit 103, do not contain any substantial structural work such as would or might ordinarily be let to a contractor engaged in such structural work, under competitive bidding, but consists largely of copper wire, poles of varying sizes and lengths, transformers, meters, crossarms, conductors and insulators, and would ordinarily be produced or set in place by company labor under suitable supervision.

The procurement and setting of poles is regarded by both plaintiff and defendants as an important item, and Spooner and Merrill and Abbett went into great detail in itemizing the various elements entering into the unit cost of this part of plaintiff's system. Thus, Mr. Abbett referred to page 1 of Exhibit 100 and took for illustration one of 35 poles therein listed as being 30 feet in length, 6

in top, N. Cedar, unit price, $12.33, and explained that the various matters which made up this unit price were as follows:

Price of pole F. O. B. woods or shipping point	$6.50
Freight to Martinsville	1.33
3% allowed for purchase and storage	.23
Unloading from car, inspecting and piling	.129
Roofing	.16
Loading and unloading	.201
Digging hole	1.838
Erecting, placing in hole and tamping dirt	1.893
Hauling one mile	.048
	$12.329

Gaining of the pole was allowed for by him in the matter of cross-arms.

[fol. 143] He further explained that the unloading, piling and inspecting included a crew set-up, consisting of a

Sub-foreman at 65¢ an hour, or	$5.85 per day	
Two ground men at 40¢ an hour, or	7.20 per day	for two
One truck driver at 50¢ an hour, or	4.50 per day	
4% allowed for insurance	.70	
3% for tool wear	.53	
One 2-ton truck at	9.00	
Total	$27.78	

In arriving at unit prices, Abbett made no percentage allowances on top of direct labor costs, except the 3% for tool wear and the 4% for insurance on labor. However, in addition to the foregoing, after applying unit costs to the items in the inventory and before reaching a grand total of the cost to reproduce the property new, he allowed an item for omissions and contingencies, an item for engineering costs which included architects and legal expense during construction, miscellaneous construction expenditures, taxes, interest and superintendence during construction, of approximately 15%.

Spooner and Merrill figured the cost of this same pole at $13.05. They allowed for original cost of pole F. O. B.

Point of delivery, pole and freight	$7.85
Unloading from car and storing	.25
Hauling from station to center of distribution	.26
Framing and roofing	.44
Digging hole	1.75
Erecting and setting pole, lining up and tamping dirt	1.37

They then allowed 5% on the cost of pole to cover purchasing, variations arising in inventory, breakage and wearing out of tools; a further allowance of 18% was made on labor costs, being a contingency for omissions, tool expense, supervision of labor, not including general engineering, and compensation insurance. While these respective percentages were applied to poles they were not similarly allowed by Spooner and Merrill on all items of property. [fol. 144] However, they prepared Exhibit No. 11, which explains in some detail their method of percentage additions to unit prices for labor and material, and some of the percentages allowed by them in this exhibit are as follows:

	Material percentages allowed	Labor percentages allowed
Poles	5	18
Street lighting, suspensions, overhead wires and cables, transformers	10	18
Pole steps, arresters, cutouts, pins, and brackets insulators, incandescent lamps	18	27
Steel towers	4	17
Anchors and guys, pole top switches, grounds, service	13	21
Cross-arms	11	19
Electric Meters	6	17

They explained that these percentages are added to take care of waste, loss and breakage, omissions, tool expense, direct supervision, injuries and damages, purchasing expense and stores and supply expense.

In the percentage allowed for "Waste", they include what they consider labor and material that is not in sight after the job is completed, such as wire ends and trimmings which are too small to be used again and are junk. They also include a certain amount for incompetent labor and unoccupied time on account of rainy weather.

[fol. 145] The allowance for "loss and breakage" is said by them to cover loss of material by theft, such as copper

wire, and the loss and breakage in connection with such items as glass and porcelain insulators, pins, cross-arms, etc.

Under the item of "omission" it is said by them that this should cover items not seen in inventory by the field inspector, and it is their contention that it is practically impossible to see and count the full amount of property in use by any large public utility, and that in the tabulation of so many items some omissions are claimed by them to be inevitable.

Under the percentage allowed for "tool expense", this is said by them to cover the cost of small hand-tools which are used up on the job and the cost of repairing and replacing stolen tools, breakage of tools and tools partially used up on the job.

Under the percentage allowance for "direct supervision" they include that part of the salaries of the heads of departments, field inspectors, office assistants, chief clerks, stenographers and clerks and also salaries of plant superintendent and clerks, general foreman and assistants and all other employees whose time is specifically charged to the job.

Under the percentage allowed for "injuries and damages" they include amounts paid to employees who are injured on construction work, hospital bills, ambulance and doctor fees paid by the company.

In the item of "purchasing expense", they include the salary paid to purchasing agent and clerks, rent, light, stationery, office supplies, traveling and miscellaneous expenses of the purchasing department.

[fol. 146] In the percentage allowed for "stores and supplies expense" they explain that this item covers the salary of the general storekeeper, the wages of laborers, store room assistants, stenographers and clerks, rent, light, heat, insurance, taxes, stationery, undistributed cartage and expresses, undistributed freight, etc.

They also include in the foregoing percentage allowance "contractor's profit" which they consider should be allowed where the services of a contractor are necessary on account of special type of work in which unusual equipment or working skill is involved. Where they consider the use of contractors they allowed a percentage for insurance on labor, payroll, property damage and public liability insur-

ance; contractor's bond, contractor's interest on deferred payments, field overhead or direct supervision, including such items as superintendent, timekeeper, watchman and field office expense. They also included a 10% item on material and labor as remuneration for the contractor and which contains some of the contractor's general expenses.

In addition to the foregoing percentage allowances as shown by Spooner and Merrill in their Exhibit No. 11, they allowed and added approximately 15% to the cost of reproduction new, less retirements, which they treat as general overhead costs as distinguished from structural costs; this is said by them to include such contingencies as acts of God, storm and weather conditions during construction, labor disturbances, unfor-seen difficulties in construction which they claim are not applied to unit costs, but are applied in a general overhead expense; this item also includes general [fol. 147] engineering which would take care of consultation and advice, supervision with plans and specifications on the work and also legal administrative and organization expenses, including an allowance for interest and taxes from the beginning of the work.

[fol. 148] XV

The difference in value of Martinsville local property as shown by Spooner and Merrill in Exhibit 2-H and that of Mr. Abbett as shown in Exhibit 100 and 101 is substantially accounted for as follows:

		Difference
Spooner and Merrill include the foregoing item of "land structures and equipment at Martinsville plant for local Martinsville use only", which item is excluded by Mr. Abbett, in the sum of		$10,936
Spooner and Merrill allowed for material and supplies	10,000	
Working cash	3,358	
Total	13,358	
Mr. Abbett allowed for the same items	2,968	
		10,390
Spooner and Merrill allowed for going concern value	17,063	
Mr. Abbett	7,275	
		9,788
Spooner and Merrill allow for cost of financing and for which no allowance is made by Abbet		4,322
Total		35,436

The remaining difference arises largely from a variation in the unit prices applied to reproduction of the tangible property inventoried, and the percentage of depreciation allowed.

[fol. 149] XVI

In defendants' Exhibit No. 103 will be found a correct inventory of property of the plaintiff regarded by the defendants as power system property. It was made up by Mr. Abbett, at the request of and for the defendant, Public Service Commission; it was originally made as of September 1, 1927, with the capital additions added subsequent to that time which brought it down to December 31, 1929, and which additions were taken by him from the books of the plaintiff company.

In the preparation of Exhibit 103, Mr. Abbett obtained from the Wabash Valley Electric Company a copy of the instructions which the company had issued to its Auditing Department for the charges which would go to make up power system of the Wabash Valley Electric Company, and he thereupon classified power system property in this exhibit on his interpretation of such instructions as were issued by the Company to its Auditing Department; in making up Exhibit 103, Abbett excluded all of the property of the plaintiff, including that at Martinsville, which he regarded as of purely local distribution character, and set out therein his opinion as to the cost of reproducing said property new, as of September 1, 1927, including overhead, but not including material and supplies, working cash or going value. He then added to this amount the net additions which were made from September 1, 1927, to and including December 31, 1929, which, after certain adjustments, he found to be $490,051.00; he then deducted $423,943 for depreciation, and concluded that the total power system value as of December 31, 1929, was $2,542,345.00 (See p. 1 of Exhibit 103). Mr. Abbett [fol. 150] then prepared Exhibit No. 104, from which it will be observed that he added to the above value an allowance of 4.08% for Cash Working Capital and material and supplies in the amount of $103,727.00, and the further sum of $222,294 for "going value", making total value of $2,868,366 for plaintiff's power system property, including the three local generating plants, Clinton, Martinsville and Sullivan,

as of December 31, 1929, (Exhibit 104); after making his deduction for said generating plants, the net value, in his opinion, of power system property as of December 31, 1929, was $2,535,932. He testified that in his opinion the property which he had thus appraised in Exhibit No. 103 was, in a general sense, used and useful in serving the people of Martinsville with electricity.

[fol. 151] XVII

Exhibit No. 26 is a partial reconciliation of the differences between the appraisal of power system property by Spooner & Merrill, and Abbett for the Public Service Commission, and the difference may be summed up in a general way as follows:

	P. S. C.	Spooner & Merrill	Difference
Generating Plants	364,313	424,282	59,969
High Voltage sub-stations	673,745	737,386	63,641
High Voltage transmission	1,337,308	1,409,227	71,919
Telegraph & Telephone	53,029	50,169	—2,860 (red)
Low Voltage sub-stations	13,406	37,674	24,268
Low Voltage transmission	100,544	178,499	77,955
Working cash & material & supplies	103,727	217,352	113,625
Going concern value	222,294	464,292	241,998
Cost of financing	None	117,620	117,620
			$768,135

[fol. 152] XVIII

As hereinbefore stated, the plaintiff has a distribution system which enables it to serve many different municipalities, industries and communities, which spread over many miles of territory, and none of which are connected or associated together in any manner, except as they are all served electrical power by the plaintiff. It has sub-stations transformers and purely local distribution facilities, similar to that at Martinsville, in many cities and towns, including Clinton, Greencastle, Jasonville, Roachdale, Spencer, Sullivan, and others in the several counties in Indiana heretofore indicated, and much of such local property, in my opinion, cannot be said to be either used or useful in the service to Martinsville. I have, therefore, set out herein and found the value of Martinsville local property, and also the maximum value of all of plaintiff's power system property which can be in any manner or to any extent said to be used or useful in serving Martinsville.

[fol. 153] XIX

I find the value of all of the local property, that is, property in Martinsville, Indiana, of the plaintiff that is actually used and useful for the convenience of the public in the service of electrical energy to Martinsville and its citizens, on May 1, 1930, to have been as follows:

	Cost of reproduction	Cost of reproduction depreciated
Poles, Towers & Fixtures	$20,670	$16,532
Overhead Conductors	12,928	11,636
Services	4,963	3,970
Line Transformers	13,920	11,832
Transformer Installation	1,879	1,597
Consumers Meters	14,977	12,713
Meter Installation	767	652
Office Equipment	2,699	2,159
Shop Equipment	515	412
Transportation Equipment	1,516	970
Laboratory Equipment	564	479
Total land, Plant and Equipment	$75,398	$62,952
to which should be added the following:		
General contingencies and general overhead	10,964	10,701
Structures and equipment at Martinsville plant for local Martinsville use only	12,475	10,936
Working cash	.....	3,358
Materials and Supplies	.....	6,500
Going concern value	.....	8,500
Total		$102,947

In explanation of the foregoing finding as to value, it will be observed that I have adopted the valuation of Engineer Abbett as to the value of land, plant and equipment, including his allowance for depreciation, and his opinion as to the present condition of the property. I am of the opinion that the percentages added by Spooner and Merrill to unit costs are too high and therefore unreasonable.

[fol. 154] On the other hand, it seems to me that the amount which Engineer Abbett allows for undistributed construction costs is too small. I have, therefore, adopted the allowance of Spooner and Merrill to cover these items.

The allowance which I have made for working cash is equivalent to approximately six weeks' operating expense. A company of this character must usually wait about six weeks before getting paid for the service it renders, and during this period it should have a reasonable amount of cash to take care of labor and operating expenses. I have adopted the allowance of $3,358.00 specified by Spooner and Merrill for this purpose, and believe it to be reasonable: the amount allowed by Abbett for materials and supplies is believed to be inadequate; but I also feel that the allowance of $10,000.00 for material and supplies and an additional sum of $3,358.00 for working cash, as provided by Spooner & Merrill, is unreasonable and unnecessary; the company must have a supply of poles, cross-arms, hardware, insulators, conductors, wire of different sizes, distributor transformers and other articles necessarily incident to its operation, and I find that $6,500.00 would be a reasonable allowance for "Materials and Supplies."

My allowance of $8,500.00 for "Going Concern Value" is believed to be just and reasonable. "Going Concern Value" is regarded as an added value of the plant as a whole over the sum of the value of its component parts of which it is composed, and proceeds upon the theory that the plant is constructed, equipped, and in active operation.

[fol. 155] The re-establishment of a property such as plaintiff has at Martinsville, and its Power System Property, would require considerable time, even after the physical or tangible items were assembled; mistakes of construction have to be corrected; substitutions have to be made; economics have to be studied; experiments are necessary which sometimes turn out to be useless; an organization has to be perfected; business must be solicited and advertised for; appliances must be sold and new devices demonstrated to induce the use of electrical current and educate the public up to the maximum point of consumption; in short, the company must expend time, labor and money to organize, develop, co-ordinate and place in operation the business which it had on February 1, 1929. On that date it did have an

established, developed and well organized business in connection with its tangible property at Martinsville, was efficiently managed, and in my opinion said property at Martinsville had a "Going Concern" value which should be considered as a part of its value for rate-making purposes in said sum of $8,500.00.

[fol. 156] XIX½

I find the value of the property described in Finding 19 as of the effective date of the order complained of, viz, Feb. 1, 1929, to be substantially the same as on May 1, 1930, to-wit, $102,947.

The evidence shows that in 1928 the Martinsville Local Property was thoroughly rehabilitated and in a substantial part rebuilt. Because of this the 1927 inventory could not be used by the engineers and a new inventory as of May 1, 1930 was made of this local property by joint effort of the engineers representing the two sides. Because of the 1928 rehabilitation work no material additions were made to Martinsville Local Property during the period from February 1, 1929 to May 1, 1930 and I find the fair value of that property as of February 1, 1929 to be substantially the same as on May 1, 1930.

[fol. 157] XX

I find that the 3% allowance for tools, 4% for insurance on labor, 3% to take care of purchase and storage of material, and the further allowance of 15% for omissions and contingencies is sufficient to take care of all matters referred to in Exhibit 11, in the reproduction of plaintiff's property.

The property of plaintiff should be differentiated from the reproduction of structural work of equal value, involving the erection of large or extensive buildings, where intricate plans, specifications and drawings would be necessary, and which would involve architectural skill and continuous supervision, and delays incident to labor situations, procurement of material and supplies from many different sources, weather conditions, etc.

The evidence shows that the biggest item in the local distribution system at Martinsville, and also in Power System property, is gotten together under the title of "poles,

towers and fixtures" and the labor of reproducing which would largely be performed by a crew or crews consisting of 3 laborers at 40¢ an hour and a truck and driver at $1.50 per hour and a line foreman at 60¢ per hour for the delivery of the poles to the place of erection; seven common laborers at 40¢ per hour for the digging of pole holes, one labor foreman supervising at 65¢ an hour and a truck and driver with the crew to handle tools and similar items at $1.30 per hour; for erecting, lining up the pole and tamping the dirt around it there would be one lineman in charge of the gang at $4.95 per day, 4 laborers at $3.60 a day, one laborer foreman at $5.85 per day, and one truck and driver at $11.70 per day. The setting of meters would be performed by a crew consisting of a second-class lineman at 50¢ per hour, [fol. 158] a meter setter at 50¢ per hour and a 40¢ helper. The placing of the wire in proper position would be done by similar crews. There is some ordinary building construction, but none of it is intricate or complicated, and it would be done by common laborers at 40¢ per hour. Rural construction and erection of high tension wires would be a little more expensive, but done by practically the same kind of crews.

[fol. 159] XXI

In fixing the value of Martinsville local property, I have included the item of $10,936.00 which the defendants contend is not properly allowable as a part of the value of Martinsville local. This property consists of a motor generator set used for furnishing direct current to the Martinsville distribution system; a motor generator set is a piece of equipment, one end of which is driven by alternating current and the other furnishes direct current. The power supplied at Martinsville is alternating current and in order to supply direct current for uses in sanitariums which are located at Martinsville, this particular distribution set is installed. It is used for the purpose of transferring the alternating current to direct current for certain customers in Martinsville. This item also includes certain switchboard panels which are used for purely local purposes in connection with the high voltage supply in Martinsville. These particular items making up this sum of $10,936.00

are all located in Martinsville, used exclusively for local Martinsville purposes, and in my opinion, are properly regarded as local property.

[fol. 160] XXI½

Mr. Abbett made an inventory and appraisal of plaintiff's power system property as of January 1, 1930. With minor exceptions this includes everything which Spooner & Merrill's allocation classifies as power system property. The property not so included consists of purely local distribution property which is not used or useful in bringing current to Martinsville for distribution over the local distribution system at Martinsville. In making this appraisal Mr. Abbett used a September 1, 1927, inventory with March 1, 1929 prices and added net capital additions from September 1, 1927 to December 31, 1929. This inventory includes the three generating plants in their entirety. In Summary, this appraisal, exclusive of working capital and going value, is as follows:

	New	Depreciated
Power system as of September 1, 1927	$2,476,237	$2,052,294
Adjusted net additions:		
September 1, 1927 to December 31, 1929		490,051
Total Power System as of Dec. 31, 1929		$2,542,345

See Exhibit 103, page 1.

To this Mr. Abbett added for:	
Working cash, and materials and supplies	103,727
Going value	222,294
Total	$2,868,366

See Exhibits 103 and 104.

[fol. 161] XXII

In my opinion, the property which is listed in defendants' Exhibit 103, plus additions to May 1, 1930, is all of the property of the plaintiff which can in any manner be classed and

considered as actually used and useful for the convenience of the public in the service of electrical energy to Martinsville and its citizens on May 1, 1930, except such as is in these findings treated and regarded as Martinsville local, referred to in Finding No. XIX herein, and I find the value of such power system property as of May 1, 1930 to be as follows:

	Cost of reproduction not depreciated	Cost of reproduction depreciated
Generating plants	$516,600	$309,388
High voltage stations	482,467	433,609
High voltage transmissions	986,309	892,877
Carrier current telephone	37,253	31,984
Low voltage sub-stations	14,289	11,423
Low voltage transmission	101,083	66,249
Total land, labor and equipment	$2,138,001	$1,765,530
to which should be added:		
Undistributed construction costs, 15%	320,700	264,800
	$2,458,701	$2,030,330
Capital additions, September 1, 1927 to May 1, 1930	539,065	539,065
to which should be added:		
Working cash		80,000
Fuel stock		5,000
Material and supplies		162,000
Going concern value		250,000
	$2,997,766.00	$3,066,395

[fol. 162] XXII½

I find the value of the property described in Finding XXII as of the effective date of the order complained of, viz: Feb. 1, 1929, to be substantially the same as on May 1, 1930, to-wit: $3,066,395, less net capital additions made thereto

between those dates. Plaintiff's Exhibit 26 discloses that capital additions to the power system property, less retirements, from Sept. 1, 1927, to April 30, 1930, total $539,065. Plaintiff's Exhibit 21 discloses that net capital additions to power system property from September 1, 1927 to December 31, 1928 (which is within one month of February 1, 1929) total $94,499.16. The difference in these totals represents additions from Jan. 1, 1929 to May 1, 1930, and is $444,565.84. There is no evidence showing whether any of such additions were made in the month of January, 1929. Subtracting from the May 1, 1930 value of $3,066,395 the additions made after January 1, 1929, in the sum of $444,-565, I find that the value of said power system property as of February 1, 1929, was $2,621,830.

[fol. 163] It will be noted that I have adopted the value of Engineer Abbett as to the value of the land, plant and equipment, including his allowance for depreciation, and his opinion as to the present condition of the property.

I have made an increase in his allowance for undistributed construction costs as I feel that the evidence justified a greater allowance than the one which he made. For the same reasons set forth in finding No. XIX relative to the value of Martinsville local property, I have increased the allowance which he made for working cash, materials and supplies and going concern value. In my opinion, the evidence amply warrants the increase which I have made and I believe the value of the power system property as I have found it herein is just and reasonable. My allowance for Materials and Supplies is the amount that was actually on hand on January 1, 1930.

[fol. 164] XXIII

I have adopted Abbett's Unit Prices, and his percentage of depreciation, because of his experience in former appraisals of similar property in the State of Indiana, his knowledge and familiarity with the property in question, and the method which he used to arrive at such unit prices and percentages of depreciation appears to me to be fair and equitable; he noted the various items on the inventory and obtained quotations for the several materials therein indicated; allowances were made by him for freight, material was given a loading of approximately 3% to take

care of storage and purchasing, labor rates were adjusted by him and slightly increased for Martinsville, common labor was figured at 40¢ an hour, linemen 65¢, truck drivers 50¢, meter setters 50¢, foreman 65¢ and sub-foreman 65¢; quotations were obtained from pole producing companies for the price of poles before they were set, and then application was made of the foregoing labor rates in installing such poles, price of copper in carload lots was obtained from a wire company engaged in selling such wire, the actual experience of the company was used as to transformers and meters, and in other instances the market price of material was taken as the standard. He assumed that the distribution system, transmission system and plant equipment would be built by company labor under company supervision, that structural work would be let by contract to men in the contracting business. He inspected the greater part of the property listed in Exhibit 100 and examined the records made by other engineers who had inspected the other portions of the property. His inspection was made for the purpose of inventoring the property and [fol. 165] for the further purpose of observing the condition thereof and expressing his judgment as to depreciation. He went over the property for inventory, took notes and made observations of the conditions thereof and placed thereon a certain percentage for the different parts of the property which would reflect, in his judgment, the present condition thereof. In so doing he took into account the wear and tear of the property and whether it came as a result of weather or other conditions. The age of the item of property under consideration was taken into account in so far as it would help his judgment in determining the present state or condition of the property and he also considered the probable useful life of the item of property under consideration. His percentage of usefulness of the various items of property are expressed in Exhibit 100 in the second to the last column under the head of "Percent Condition". For example, on pages 1, 2 and 3 he lists 486 poles at 90%, 175 at 60%, 137 at 45%, 31 at 40% and 87 at 65%. These same poles are listed by Spooner & Merrill on pages 2, 3 and 4 of Exhibit 2-H at 80%. Some of this property has been in existence longer than ten years and some of it has been installed within the last two or three

years and the division by Abbett into groups seems to be justified.

	Spooner & Merrill	Abbett
Anchors and guys are listed by	80%	80%
Cross-arms and hardware	80%	85%
Conductors	85%	90%
Insulators	100%	90%
Transformers	95%	85%
Meters	95%	85%

Other percentages are allowed by the respective engineers of about the same comparative difference.

[fol. 166] I am of the opinion, therefore, that the Unit Price adopted by Abbett and his allowance for depreciation are fair and reasonable.

[fol. 167] XXIII½

As hereinbefore found, the plaintiff has three generating plants, one at Martinsville, one at Sullivan and one at Clinton, which are not operated continuously, but which are in fact used as "stand by" plants for emergency service.

I find that the value of these three generating plants on February 1, 1929 was $309,388.00. It is contended by defendant that these generating plants are obsolete and should really not be considered in arriving at the value of plaintiff's property for rate-making purposes. However, in my opinion they are of value to the plaintiff and are used and useful in connection with the generating of electrical energy, and even though they are not operated at all times yet I find them to be used and useful to the public service.

These generating plants appear to me to be somewhat analogous to the reservoirs referred to by the Circuit Court of Appeals for the Third Circuit in the Board of Public Utility Commissioners vs. Elizabethtown, 43 Fed. (2nd) 478, wherein it was disclosed that the company had a small reservoir which had been built twenty years ago and that no water had been in it for three years. The company admitted this fact, but contended that the reservoir was in fact employed as a "balancing reservoir" and "overflow for the mains". The Circuit Court of Appeals upheld the contention of the company in this regard and disposed of the matter as follows:

"The Board contends that this small reservoir located on a tract of 67 acres of land was built twenty years ago and no water has been in it for three years. This the company admitted, but it contended that the reservoir is employed as a "balancing reservoir" and "overflow for the mains" and is reserved, and in that sense is used as a pressure safety valve to prevent bursting of the mains when the pressure reaches an excessive amount, the pressure being regulated once or twice a week. On this evidence, standing uncontradicted we cannot say that the reservoir and its connections are not used in the public service."

[fol. 168] I am, therefore, of the opinion that this property is used and useful by the plaintiff in connection with its system of generating and transmitting electrical energy.

XXIV

During the years of 1927, 1928 and 1929, the Wabash Valley Electric Company generated and purchased electrical current as follows:

1927

Plant	K.W.H. Generated
Clinton	77,120
Martinsville	17,030
Spencer	2,930
Sullivan	15,620
Total	112,700
Purchased	
Indiana Electric Corporation	57,684,897
T. H. I. & E. Traction Co.	29,972
Interstate Public Service Co.	188,100
Merchants Heat & Light Co.	110,780
Northern Indiana Power Co.	345,600
Illinois Power & Light Co.	15,000
	58,374,349
	112,700
Total	58,487,049

1928

Plant	K.W.H. Generated
Clinton	133,820
Martinsville	23,390
Spencer	7,370
Sullivan	13,100
	177,680

Purchased	K. W. H.
Indiana Electric Corporation	79,962,702
T. H. I. & E. Traction Co.	35,401
Interstate Public Service Co.	273,300
Illinois Power & Light Co.	4,400
	80,275,803
	177,680
Total	80,453,483

See page 65 of Exhibit No. 111 and Exhibit No. 16.

[fol. 169] 1929

Plant	K.W.H. Generated
Clinton	96,640
Martinsville	20,530
Spencer (has been abandoned)	....
Sullivan	6,300
	123,470

See page 1 of Exhibit No. 129.

Purchased	
Indiana Electric Corporation	83,781,646
Illinois Power & Light Co.	3,000
Interstate Public Service Co.	312,960
T. H. I. & E. Traction Co.	39,316
	84,136,922
	123,470
Total	84,260,392

See Exhibit 107 on page 35.

For the year ending May 31, 1930, the Wabash Valley Electric Company generated and purchased electrical current as follows:

Generated	K.W.H.
Clinton	57,920
Sullivan	6,300
Martinsville	13,725
Total	77,945
Purchased	
Interstate Public Service Co.	396,560
T. H. I. & E. Traction Co.	42,897
Indiana Electric Corporation	84,778,437
	85,217,894
Total	85,295,839

See Exhibit No. 17.

For the year ending May 31, 1930, the Wabash Valley Electric Company received from the Northern Indiana Power Company at Lafayette, Indiana, and transmitted over its Lafayette-Clinton transmission line, the total of 1,585,400 K. W. H. This total is itemized by months in Exhibit No. 15.

[fol. 170] XXV

In the years of 1927, 1928 and 1929, the plaintiff delivered electrical current to other companies as follows:

1927

For the year 1927, it made total net deliveries to other companies or consumers of 51,743,620 K. W. H. Of this total amount it made specific deliveries as follows:

Attica Electric Co.	4,862,590
Northern Indiana Power Co.	15,666,974
Indiana Electric Corp.	1,678,980
Illinois Power & Light Co.	12,600
Interstate Public Service Co.	3,000
Total	22,224,144

City of Martinsville	2,219,144

The remaining portion of said total was delivered to plaintiff's customers in its own territory and is shown in detail on pages 130 to 135 of Exhibit No. 111.

1928

For the year 1928, it made total net deliveries to other companies or consumers of 71,783,644 K. W. H. Of this total amount it made specific deliveries as follows:

Attica Electric Co.	5,795,720
Northern Indiana Power Co.	31,891,500
Indiana Electric Corp.	778,050
Total	38,465,270
City of Martinsville	2,426,344

The remaining portion of said total was delivered to plaintiff's customers in its own territory and is shown in detail on pages 136 to 141 of Exhibit No. 111.

1929

For the year 1929, it made total net deliveries to other companies or consumers of 75,611,628 K. W. H. Of this total amount it made specifie deliveries as follows:

[fol. 171] Attica Electric Co.	6,014,822
Northern Indiana Power Co.	30,239,200
Indiana Elec. Corp	1,364,942
Total	37,618,964
City of Martinsville	2,532,798

The remaining portion of said total was delivered to plaintiff's customers in its own territory and is shown in detail on pages 84 to 91 of Exhibit No. 107.

[fol. 172] XXVI

For the year ending July 31, 1927, the Wabash Valley Electric Co., handled a total of 51,457,770 K. W. H., of which 21,335,114 K. W. H. were delivered by it to the Northern

Indiana Power Co., and Attica Company, affiliated corporations.

In the year ending May 31, 1930, the corresponding figures are, total 76,373,914 K. W. H., of which 35,340,952 went to Northern Indiana Power Company and Attica Electric Co., and 41,032,962 were delivered to the Wabash Valley's own territory. (Exhibit 22, p. 13).

These deliveries by plaintiff to Northern Indiana Power Company and Attica Electric Co. are different from deliveries direct by it to customers in its own territory, in the following particulars:

1st. They are in enormously greater quantities than to other customers.

2nd. The current received by Wabash Valley at Clinton and delivered at Lafayette is received and delivered at the same voltage and there is, therefore, no transformation loss.

3rd. They are made upon an interchange arrangement, that is to say: the agreement between such companies was such that the Wabash Valley Electric Co. had the right to receive current from the Northern Indiana Power Co., at the same price that the Northern Indiana Power Co. paid the Wabash Valley therefor; since 1924 or 1925 has been buying current from the Indiana Electric Corporation and also transmitting current to said corporation; up until December, 1929, the Wabash Valley Electric Co. interchanged current with the Northern Indiana Power Co., and Attica Electric Company on the basis of a cent and a quarter per K. W. H., but since that date the interchange has been upon the basis of one cent per K. W. H.: this basic price is for bookkeeping purposes only; the current is metered before it leaves one company's property and goes to another and the meter readings are "washed out" and the whole transaction is merely a bookkeeping procedure.

4th. The current thus delivered to such companies is of sufficient quantity to substantially build up the load factor on the Dresser plant and thereby contributes materially to the maintenance and operation of that plant.

[fol. 173] XXVII

The electricity that is delivered by the plaintiff to the Northern Indiana Power Company at Lafayette is received

by plaintiff from the Indiana Electric Corporation at Clinton and transmitted by plaintiff over its 66,000 volt line from Clinton to Lafayette; it is received at sixty six thousand volts and is transmitted and delivered at the same voltage. In the transmission and transforming of electrical current there is a certain amount of "line loss", due to the fact that such current is transmitted by means of copper wires and copper is not a one hundred per cent conductor: it has a resistance and as the current passes through it, it loses part of its voltage. This shrinkage is recognized by plaintiff and in Exhibit No. 30 in its allocation of a portion of power system property value to Northern Indiana Power Co. and Attica Electric Co. for the year 1929, it corrects the amounts sold to these two companies for that year as follows:

"Energy sold to Northern Indiana Power Co.....	30,239,200 K.W.H.
Energy sold to Attica Electric Co.....	6,014,822 K.W.H.
Corrected for Line Loss:	
Northern Indiana Power Co. 2.1% Loss.....	30,887,844 K.W.H.
Attica Electric Company 8.75% Loss.....	6,591,585 K.W.H.

Also on page 13 of Exhibit No. 22 corrections are made for line losses on other parts of the system as follows:

	K.W.H. delivered	K.W.H. purchased and generated
"Wabash Valley Electric Company cities, towns, etc.—Clinton-LaFayette Line Corrected for 12.4% Line and Transformation Loss	3,780,800	4,315,982
[fol. 174] Other Wabash Valley Electric Company cities and towns, etc., Corrected for 16.135% Transformation Loss.....	37,252,164	44,418,952"

Said Exhibit (Pa. 13) concludes that the Percent of Distribution Loss to Martinsville is 14.48%. The usual average for transformation and line loss on a power system such as plaintiff operates, not including losses inside the gateways, is between ten and twelve per cent.

[fol. 175] XXVIII

The ascertainment of a fair apportionment of power system property value to Martinsville to be added to the fair value of the Martinsville local property in order to get a complete rate base for Martinsville is not free from difficulty.

Mr. Harry Wenger, Chief Engineer of the Commission, testified that he thought it fair to apportion power system property value to Martinsville on the basis of the ratio of actual sales of K. W. H. to Martinsville consumers to the total sales made by plaintiff in 1929. By using actual sales figures, line and transformation losses are accounted for. Exhibit 110, prepared by Mr. Wenger, shows the ratio so determined is 3.027%.

If the ratio is determined on the basis of sub-station output at Martinsville to Plaintiff's total sub-station output for 1929, the result is 3.34%. Sub-station output at Martinsville was 2,532,798 K. W. H. in 1929, and the total sub-station output was 75,811,628 K. W. H.. (Exhibit 107, page 45).

In 1928 actual sales at Martinsville were 2,082,286 K. W. H., and total sales were 68,936,497 K. W. H. For that year the ratio of sales at Martinsville to total sales is 3.02%. And, in 1928 the sub-station output at Martinsville was 2,426,344 K. W. H. and the total sub-station output was 71,783,644 K. W. H. On the sub-station output basis for 1928 the ratio is 3.38%.

[fol. 176] Mr. Abbett prepared Exhibit 106 in which he determined a ratio of 3.01% for this purpose on the basis of maximum consumer demand at Martinsville in 1929 to maximum consumer demand on plaintiff's entire system in the same year.

It will be noted that the percentages arrived at on the several foregoing bases are remarkably close to each other. I find that an apportionment of power system property value to Martinsville on the basis of 3.30% of the whole power system value is fair.

My find as to the fair value of the total power system property of plaintiff is $3,066,395. Applying to this amount the percentage of 3.30, the result is $101,191. I have found the fair value of the Martinsville local property to be $102,947. To this I add $101,191 as the fair portion of the fair value of the power system property which should be compensated by rates applicable to Martinsville consumption. I find that the total rate base upon which plaintiff is entitled to earn a fair return out of revenues derived from rates for service at Martinsville is $204,138.

[fol. 177] XXIX

The plaintiff urges that the whole of its property should be considered in establishing the rate base and that the test of the adequacy of rates is whether or not with a particular rate in effect an adequate return will be earned by plaintiff's entire electric business based upon the fair value of its entire electric property used and useful in its electric business as a whole.

In my opinion this contention is too broad and really loses sight of the statute which provides that ten complainants may make complaint against any public utility to the effect that its rates, tolls, charges or schedules are unreasonable or unjustly discriminatory and it shall thereupon become the duty of the Public Service Commission to have a hearing in relation to such rates, etc. and proceed to

"value all the property of every public utility actually used and useful for the convenience of the public * * * and shall give weight to the reasonable cost of bringing the property to its then state of efficiency."

It does not seem to me that where a municipality such as Martinsville is served by a utility having property of the value which I have found herein the plaintiff's property to be, and scattered over so much territory as has been set out herein, would require the Public Service Commission to value all of the property thus used by such utility in the service of one community or locality. I think it was rather the spirit of the statute and the intent of the Legislators that the Commission should only find the reasonable value of the property that was actually used and useful in the [fol. 178] service of each community and give due and proper consideration and weight to the bringing of such property to its then present state of usefulness, and that the petitioners in a case of that character should not be jeopardized by the possibility of having a rate established for their municipality which would insure a legal return to the utility on all of its property, regardless of how it is used or where it is located.

The defendants prepared their Exhibit 110 for the purpose of showing their theory of a proper allocation herein; they take the total of plaintiff's sales of 72,242,790 K. W. H. for the year 1929, and its sales at Martinsville for the same

period of time of 2,186,564 K. W. H., which gives a ratio of 3.027%; they then take their value of power system property, as shown on their Ehibit 104 of $2,535,932 and allocate $76,763 to Martinsville; or, including Power Generating Plants with the Power System Property, making a total of $2,868,366, and upon this basis allocate $86,825 to Martinsville, which, with the value of Martinsville Local as found by them to be $83,000, makes the total rate base, according to the defendants, of either $159,763, or, including the Power Plants, $169,825.

The plaintiff, not conceding that an allocation should be made, urges that if an allocation is made, it should not be upon the basis of total quantities of electricity sold or delivered by the plaintiff, and that it would not be fair to it to allocate upon a basis of total K. W. H. handled by it during any given period, because of its delivery of approximately 50% of its current to the Attica Electric Company and the Northern Indiana Power Company, and in making such deliveries it argues that much less than one-half of its Power System Property is used.

[fol. 179] XXX

I find that plaintiff is purely a distributing utility; it has no power to sell or exchange with any of its affiliated or associated companies; it is affiliated with the Attica Electric Company, the Colfax Electric Company, the Indiana Electric Corporation, the Northern Indiana Power Company, Moran Electric & Power Company and the Mulberry Light & Power Company, and with all of which said companies it has the interchange arrangement hereinbefore set out; it makes no charge to either of such affiliated or associated companies for current delivered to them, and current is delivered to each and all of such affiliated companies at the same rate the plaintiff pays therefor; up to December 1, 1929, plaintiff purchased all of its current at one cent per K. W. H. and exchanged such current with subsidiary companies on the basis of one cent and a quarter per K. W. H.; after December 1, 1929 it continued to buy its current at one cent per K. W. H. and its exchanges were made on the basis of one cent per K. W. H.; plaintiff sustained the line loss hereinbefore set out; it bore the whole expense of management, operation, maintenance and taxation and

made no charge against such associated or affiliated companies to in any manner compensate it for any of such items.

I have set out in finding No. IX herein that it is commercially expedient and economically sound for companies furnishing electrical current to make such inter-connecting arrangements and obtain such current from large producing plants and distribute it to the ultimate consumers; while this is true, I do think that such an arrangement should be carried on to the extent of prejudicing the rights [fol. 180] of the ultimate consumer, or making any one or more of such consumers carry more than a just and fair proportionate share of the operating expense of the utility thus making such distribution. The inter-connecting arrangement seems to be ideal for the purpose of meeting competition and should enable the utility to furnish current with more regularity and greater continuity than service from purely local or isolated plants, but I do not believe that the plaintiff should enter into such inter-connecting arrangements with affiliated companies and thus and thereby be permitted to build up a system which enables it to virtually stifle competition, by supplying its equipment and rendering service to its allied or associated companies without receiving from them just compensation, or a reasonable remuneration for such equipment and service, and at the same time charge the expense of the operation of thus serving such inter-connecting companies to other consumers. It seems to me that this is the inevitable result of plaintiff's contention, and I am, therefore, of the opinion that the electrical current which was furnished by the plaintiff to the Indiana Electric and other affiliated companies should not be eliminated in arriving at the rate base in this case. In other words, and in my opinion, the plaintiff has not shown by any evidence herein how the deliveries of current by it to such other affiliated companies can be fairly or properly eliminated from consideration herein and I find that if an allocation of plaintiff's power system property is to be made and charged to Martinsville in connection with the establishment of a proper rate base herein, the amount thereof should not exceed $101,191.00.

[fol. 181] XXX½

The evidence shows, and I find, that if power purchased by plaintiff and delivered by it over its transmission sys-

tem to its affiliated companies such as Northern Indiana Power Company and Attica Electric Company were charged to those companies at the gateway rate found by the Commission for Martinsville, and such companies were required to pay said rate, then such affiliated companies would cease taking such power because they can get it cheaper from power sources in the Northern part of the State, in which event, the only use made of plaintiff's power system property would be to transmit current to its own customers within its own territory.

I find, however, from the evidence, that plaintiff's power system property was largely planned and constructed under the common management of the affiliated system as a part of the general plan of the affiliated system and with a view to delivering electricity from the Dresser plant of the Indiana Electric Company, to affiliated companies, and receiving current from such companies, as well as serving plaintiff's own customers in its own territory through which said line runs, as more particularly set out in Finding No. 25 herein.

I also find that plaintiff's power system property as so planned and constructed represents an appreciably higher investment and operating expense than if it had been planned and constructed under an independent management of plaintiff for its exclusive needs, and by reason thereof I find that it is not fair to plaintiff's customers at Martinsville, and to its other customers within its own territory, to require them to pay rates sufficient to pay all operating expenses, depreciation and return on plaintiff's power system property as the same exists and is being used. I, therefore, rejected the allocation suggested by plaintiff in its Exhibit 28 as not being a fair division or proper allocation of plaintiff's power system property as a whole as to use for plaintiff's own customers and as to use for its affiliated companies.

[fol. 182] XXXI

Page 27 of Exhibit 107 shows that according to the books of plaintiff company the total operating revenues for Martinsville during the year 1929 were $99,550.91

The same exhibit shows the total operating expenses at Martinsville, excluding depreciation, to have been	65,921.87
Leaving net operating revenues before depreciation of	33,629.04
It is conceded by plaintiff that of the above amount charged on its books to Martinsville as an operating expense, the sum of $3,384.80 was in fact improperly charged to Martinsville and should really be charged to Power System Cost, and instead of said sum of $3,384.80 being all charged as an operating cost to Martinsville, I have allocated $118.50 to operating expenses at Martinsville, which will, therefore, increase the net income to Martinsville in the sum of	3,266.30
or a total net income to Martinsville, before depreciation of	36,895.34

Plaintiff shows by its Exhibit 10 that if the rates actually prescribed by the Public Service Commission had been in force for the year beginning May 31, 1929, and ending May 31, 1930, there would have been a reduction of its income at Martinsville in the sum of $15,901.70.

But the plaintiff company, in the keeping of its records [fol. 182a] showing the operating expenses chargeable to Martinsville for the year 1929, is shown on page 30 of Exhibit 107, to have charged Martinsville the sum of $5,180.65 for "Regulatory Commission Expenses", this item being a 1/10 of a total rate case expense of $50,000.00, and in Exhibit 28 this item is carried by plaintiff at $6,235.98.

I find that these amounts are exorbitant and that it is unreasonable to charge Martinsville with rate expenses to the extent of $50,000.00 and that the charge of the company on its books of $5,180.65 in Exhibit 107, and the corresponding charge of $6,235.98 in Exhibit 28 for rate expense and as an operating expense for the year 1929 to the City of Martinsville is unreasonably high. It seems to me that if a municipality of the size of Martinsville is to be charged an expense of this magnitude in a rate case, it

would virtually prohibit the filing of petitions for rate revision by patrons of a utility and would prevent such patrons from resisting such petitions when filed by the utility itself, thus nullifying the law relating to rate regulation.

The Commission ordered that the Rate Case Expense charged to Martinsville should be amortized over a period of ten years, charged as an Operating Expense against the revenues from service at Martinsville, and should not exceed $400.00 per year. No evidence was offered in this case directly on the proposition as to whether the allowance by the Commission was reasonable or unreasonable. There [fol. 183] is evidence in the record from the witness Mr. Schiesz to the effect that all of the expense charged upon the books of the company to this case was expense incurred directly in connection with this rate case and used only in defense of the petition. The plaintiff contends that there is no evidence in the record to dispute the testimony of Mr. Schiesz in this regard and that there is likewise no evidence that any expense incurred by the company and charged as an operating expense to Martinsville was unreasonable and that there is no evidence upon which a claim of an abuse of discretion upon the part of the managers of the company in the amount of expense incurred in the defense of this case could be predicated.

In this connection defendants call attention to Chapter 146 of the Acts of the Legislature of Indiana of 1927, Acts 1927, page 445, which provides as follows:

"The commission shall inquire into the management of the business of all public utilities, and shall keep itself informed as to the manner and method in which the same is conducted and shall have the right to obtain from any public utility all necessary information to enable the commission to perform its duties. If, in its inquiry into the management of any public utility, the commission finds that the amount paid for the services of its officers, employes, or any of them, is excessive, or that the number of officers or persons employed by such utility is not justified by the actual needs of the utility, or that any other item of expense is being incurred by the utility which is either unnecessary or excessive, the commission shall designate such item or items, and such item or items so designated, or

such parts thereof as the commission may deem unnecessary or excessive, shall not be taken into consideration in determining and fixing the rates which such utility is permitted to charge for the service which it renders."

[fol. 184] It seems to me that under the foregoing Act of the Legislature the Public Service Commission does in fact have a duty to perform in connection with determining whether expenses incurred by a utility in rate cases is reasonable or otherwise, and I do not believe the decision or finding of the Commission in this regard should be disturbed unless there is sufficient evidence to show clearly that it has comm-tted a substantial error.

The plaintiff further contends that this is a matter which should be reposed in the sound judgment of the management of the utility, but I am not willing to concede such to be the law.

In my opinion the evidence is not sufficient to justify a finding that the Public Service Commission has made any substantial error in its allowance for rate expense, and I, therefore, approve of the action of the Commission in this regard and conclude that the rate expenses charged to Martinsville should be amortized over a period of ten years, charged as an operating expense against the revenues from service at Martinsville, but should not exceed $400.00 per year.

[fols. 185-188] XXXII

I understand that the parties hereto virtually agree that 4% is a reasonable allowance for depreciation; a difference arises, however, between them as to what the 4% should be applied to. Plaintiff contends that the 4% depreciation should be applied to the reproduction new value of the tangible property, except land, at the effective date of the order. Defendants urge that this percentage of depreciation should be based upon "present value" which they argue is reproduction cost less existing depreciation.

[fol. 189] It seems to me, therefore, that the amount to be allowed the plaintiff for depreciation should be based upon the value of plaintiff's property at or about the time the order in question was to become effective, and that this allowance should not be based on original cost, but should

rather be applied to the "present value", giving consideration to the cost to reproduce new, less a reasonable amount for depreciation, and which allowance, in my opinion, should be 4% of the reasonable value of the depreciable property at or about the time the rates in question were to become effective.

[fol. 190] XXXIII

My allowance for annual depreciation is as follows:

Tangible Martinsville Local, 4% of $84,589.00 or	$3,383.56
and 4% of amount allocated from Power System Property to Martinsville.	
In figuring value of Power System property to be allocated to Martinsville, I have taken total value of Power System Property to be $3,066,395, but in this amount is $497,000.00 included for working cash, fuel, material and supplies and going concern value, and which, when deducted, leaves a balance of $2,569,395, and 3.30% of this amount gives $84,790 as the proper basis for computing the allowance for depreciation on Power System Property, or	3,391.60
Total annual depreciation requirement	$6,775.16

[fol. 191] XXXIV

Working Capital

I have made an allowance for working capital. I understand this to be a proper item, and attention is directed to Vincennes Water Supply Company vs. Public Service Commission of Indiana, 34 Fed. (2nd) 5, where the Circuit Court of Appeals for the Seventh Circuit makes use of the following language:

"There can be no question as to the necessity of working capital in the management of any enterprise. It furnishes the means by which business is transacted. It meets the pay roll and the current bills for materials and other running expenses. A capital fund for these purposes present from day to day in amounts adequate for the reason-

able needs of the company, must be supplied. It should be an amount such as reasonable business men, experienced, would require in the conduct of this kind of business, and we find in various cases allowances of from 3 to 8% for that amount."

The amount of $3,358.00 which I have recommended in this case is the amount specified by Spooner and Merrill, and it seems to me to be a reasonable allowance for a utility of the character of plaintiff and engaged in the business of furnishing electrical energy.

[fols. 192-194] XXXV

Cost of Financing

The Circuit Court of Appeals for the Seventh Circuit in the case of Vincennes Water Supply Co. vs. Public Service Commission, 34 Fed. (2nd) 5, seems to hold that there should be no allowance for any expense in financing a utility of this character, if no such expense has been incurred. Attention is directed to Paragraph Ten on page 9 of said opinion, which is as follows:

"Appellant contends there should be included in the valuation, an item of $65,000.00 for cost of financing and, while there may be circumstances under which consideration of such an item is proper, there is no fact in this record that would establish the propriety of such inclusion. It has not been shown that there has been any expense in the financing, and if there has been none, none should be included."

I have not made any allowance herein for the cost of financing, for the reason that the evidence does not show that any such expense has been incurred, or that it would be necessary to incur any such expense.

[fol. 195] XXXVI

Rate of Return

[fol. 196] The evidence shows that the business which the plaintiff is engaged in has been established for some time and although competition is rather keen, yet there is no

evidence that tends to show that its business is surrounded by any unusual hazard; its business is shown by the evidence to be gradually increasing from year to year; the supply of electrical energy is without question bound to continue to be a common necessity; in my opinion a return of 7% would be a fair and reasonable allowance to the plaintiff in this action.

[fol. 197] XXXVII

In Exhibit No. 22, prepared by plaintiff, it is shown that the gross revenue of plaintiff at Martinsville for the year ending May 31, 1930, was $97,770.42, which, less the reduction which is sustained under the rate prescribed by Public Service Commission Order No. 8894 of $15,901.70, leaves a revenue under the order complained of for the year ending May 31, 1930, of $81,868.72, according to plaintiff's Exhibit.

In defendants' Exhibit 107 at pages 76 to 83, it is shown that the operating revenue under the rates prescribed by the Commission under its order No. 8894, for the month of January would have been $6,783.19. And in defendants' Exhibit 113 it is shown that the operating revenues for the other eleven months of 1929 under said prescribed rates would have been $77,966.94. By said two exhibits it is shown that the total operating revenues for the full calendar year of 1929 under said prescribed rates would have been $84,750.13.

[fol. 198] XXXVIII

The rates complained of, when applied to the consumer data for the twelve months of 1929, show an operating revenue in the amount of $84,750.13. These rates are lower than the rates actually in force during that year. I find that the rates complained of would have yielded an operating revenue of not less than $84,750.13 in 1929.

XXXVIII½

I find that the rates complained of herein would have yielded a gross operating revenue for Martinsville for the year ending May 31, 1930, not less than the sum of $81,868.72.

[fol. 199] XXXIX

On page 1-A of Exhibit 28 plaintiff shows gross revenue for Martinsville for the year ending May 31, 1930, to have been $97,770.42.

It charged as an operating expense for the same period of time an item of "Power Cost—2,528,511 K. W. H. @ $.022897—$57,895.32."

It also charged against Martinsville for "Regulatory Commission Expense" the sum of $6,235.98.

I have expressed my opinion in Finding No. 31 as to this last item and I deem it unnecessary to add anything thereto, except to say that I think only $400.00 should be charged for this purpose and which would decrease operating expenses for Martinsville in the year 1929 to the extent of $5,835.98.

As to the item of Power Cost; I can find no good reason and no evidence in the record to justify the charge of $.022897 per K. W. H. to Martinsville. During the year 1929, the plaintiff could, and in fact did, purchase all of the electrical current it used, except 123,470 K. W. H., at $.01 per K. W. H., and the price which it thus paid was in fact a reasonable and fair price for the interchange of current between interconnected companies.

However, the fact that plaintiff could purchase current at these prices does not mean that it would deliver it to Martinsville at that same rate: in Finding No. IX, I have shown some of the advantages to be obtained by the interchange system which is made available to Martinsville on account of [fol. 200] plaintiff's interconnections: in addition thereto, as hereinbefore shown, approximately 50% of the K. W. H. delivered by plaintiff over its transmission lines goes to gravel pits, coal mines and other industries that make extensive use of machinery in the day time, which would otherwise be idle if it was kept only for lighting purposes at night, and by thus combining the business of furnishing electrical current to municipalities for lighting and other purposes at night with industries that use large quantities of current in the day time, it is possible to reduce the cost of such current; owing to the fact that the load factor outside of municipalities is better than in such municipalities, it is quite probable that the cost per K. W. H. is more to a city like Martinsville than to an industry using propor-

tionately the same amount of current outside of such city. In a system as intricate as that conducted by the plaintiff, it is very difficult to arrive at a proper cost per K. W. H. for electrical current delivered to any segregated municipality or industry.

Exhibit No. 107 is a report of an examination of the records of the Wabash Valley Electric Company for the period beginning January 1, 1929, and extending to December 31, 1929, prepared by the accounting department of the Public Service Commission: with the exception of "Consumer's Data", it was prepared in the offices of the plaintiff company and reflects a true report of the records and books of the plaintiff pertaining to the Martinsville area for the above period of time.

[fol. 201] Exhibit No. 28 was prepared by the plaintiff itself showing operating balance for the entire company for the year ending May 31, 1930, giving effect to rates ordered by the Public Service Commission under Order No. 8894 to consumption by customers in Martinsville, Clinton, Greencastle, Jasonville and Sullivan.

On page 27 of Exhibit 107 it is disclosed that the company, in apportioning power cost to Martinsville for the year 1929, charged Martinsville for power for that year the sum of $32,800.82, or approximately $.013 per K. W. H.

[fol. 202] In Exhibit 28 plaintiff charges Martinsville with 2,528,511 K. W. H. at $.022897 per K. W. H., or a total of $57,895.32.

In arriving at the cost per K. W. H. of $.022897 in Exhibit 28, plaintiff, on page 6 takes the entire Power System Operating Expense of $1,018,710.58 and deducts therefrom operating expenses and taxes on property which it allocates to the use of the Northern Indiana Power Company and the Attica Electric Comany in the amount of $393,855.94, leaving what it shows in said Exhibit as a net operating expense to Power System Property of $624,854.64. It then figures a depreciation of 4% on $2,328,951.00, or $93,158.04 and allows itself an 8% return on $2,731,671, or $218,553.68, and adding the depreciation allowance and allowance for return to the net operating expenses gives a total cost of Energy at Gateway of Wabash Valley Electric Company's cities and towns of $936,546.36. It then takes the total current generated and purchased, as shown by the period of time

covered by Exhibit 28 of 76,373,914 K. W. H. and deducts therefrom the amount of 35,340,952 K. W. H., which was delivered to the Northern Indiana Power Company and the Attica Electric Company and which leaves it a balance of 41,032,962 K. W. H., which it claims in its Exhibit 28 was delivered at gateway of cities and towns served by the plaintiff, as distinguished from the power delivered to Northern Indiana Power Company and Attica Electric Company. It therefore concludes that it cost $936,546.36 to deliver 41,032,962 K. W. H. to the various gateways of its own system, eliminates the deliveries to Northern Indiana Power Company and Attica Electric Company, and thus arrives at its figures of $.022897 per K. W. H.

[fol. 203] In carrying out this method and in arriving at the proper depreciation and rate base, it likewise allocated to said Northern Indiana Power Company and Attica Electric Company approximately 31.9% of the physical property, or the sum of $905,979, which amount, deducted from what it figured was the total value of Power System Property, viz, $3,637.650, left the balance of $2,731,671, which it adopted as the basis upon which it was entitled to a return of 8%.

The Public Service Commission figured the cost per K. W. H. at Martinsville to be .0172: it apparently arrived at this figure by a computation based upon the total K. W. H. purchased and generated during the year ending July 31, 1927 of 57,549,193, out of which plaintiff actually sold 51,457,770 K. W. H. at a cost, including power cost, operating expenses and taxes, of $719,175.91, or a unit cost of $.0139 plus per K. W. H. actually sold: to which it added $.0033 per K. W. H., considered by it to be a fair return on the property used and useful to generate such current and deliver it to Martinsville.

The defendants contend that the only correct method of arriving at a proper "gateway" charge to Martinsville is to include all electrical energy delivered by plaintiff to all gateways, including that delivered to the Attica Electric and the Northern Indiana Power Companies: they urge that these latter deliveries must enter into the computation for the reason that the use of plaintiff's system to make such deliveries is not compensated for in any reciprocal benefit derived by plaintiff from such companies.

[fol. 204] XL

Allocation Method Applied to 1929

If the method of allocating a part of plaintiff's power system property to Martinsville is adopted, and the calendar year of 1929 is used as the basis for testing the reasonableness of the rates complained of, I find that if these rates had been in effect during that year they would have yielded a fair rate of return on the fair value of plaintiff's property used and useful in giving the service to which the rates apply.

As to operating revenues, operating expenses, depreciation and balance available for return I recapitulate and find as follows:

Operating revenues		$84,750.13
Operating expenses:		
Power—2,532,798 K. W. H. @ $.0133, as carried on books of pany	$33,726.33	
Used by other departments of company	925.51	
Total power expense	$32,800.82	
Distribution	5,111.28	
Consumption	1,475.80	
Commercial	2,671.10	
New Business	3,038.92	
General & Miscellaneous	9,731.27	
Taxes	2,527.23	
Rate expense	400.00	
Appliance sales—loss	503.56	
Total	$58,259.98	
[fol. 205] Total	$58,259.98	
Less indirect charges to construction.	2,784.60	
Total of above expenses	$55,475.38	
Gross income (before depreciation)		$29,274.75

Depreciation on tangible property:

(a) 4% on $84,589—Martinsville local		**$3,383.56**
(b) 4% on $84,790 allocable part of power system property		**3,391.60**
		$6,775.16
Leaving net for return		**$22,499.59**

which provides a return in excess of 7% on the fair value of $204,138 which I have found for Martinsville local plus the allocable part of the power system property, and would make a return of 11+% on that value.

[fol. 206] XLI

Allocation Method Applied to Year Ending May 31, 1930

I find that if the rates complained of had been in effect during the twelve month period ending May 31, 1930, they would, according to plaintiff's estimate in Exhibit 28, have yielded a gross revenue of $81,868.72. I make a recapitulation and finding on that basis for that period as follows:

Income under rates prescribed		$81,868.72
	Expenses	
Power—2,528,511 K. W. H. @ $.0133, as		
Carried on Company books	$33,629.20	
Distribution	5,607.82	
Utilization	1,499.58	
Commercial	2,255.72	
New Business	2,590.39	
General & Miscellaneous	10,432.88	
Uncollectible accounts	578.06	
Taxes	2,579.98	
Rate Expense	400.00	
	$59,573.63	
Indirect charges to construction Credit	4,920.25	
Balance	$54,653.38	

Depreciation on Martinsville local, 4% on $84,589	3,383.56	
Depreciation on Power System Property allocated to Martinsville, 4% on $84,790	3,391.60	
	$61,428.54	
Leaving for return		$20,440.18

[fol. 207] and which is in excess of 7% on $204,138. This balance would make a return of 10+% on the combined value ($204,138) of the Martinsville local and the allocable part of the power system property.

[fol. 208] XLII

Gateway Method Applied to 1929, Using Gateway Rate $.01718

Defendants introduced Exhibit 108, prepared by Mr. Harry Wenger, Chief Engineer of the Commission, to show what would have been a fair gateway rate at Martinsville for 1929. The rate shown by that exhibit is 1.699 cents per K. W. H. In arriving at that rate the value of the power system property was taken at $2,868.366. A revision of Exhibit 108 by substitution of power system value hereinbefore found by me results in the following:

Total power system expense as shown by the company's books (See exhibit 107, page 36.)	$1,000,551.54	
Add substation cost charged direct to Martinsville distribution	3,384.80	
	$1,003,936.34	
Deduct—Portion of indirect charges to construction	18,242.68	
	$985,693.66	
Depreciation, 4% on $2,569,395 (Finding No. XXXIII)	102,775.80	
Return, 7% on $3,066,395	214,647.65	
Total of above items		$1,303,117.11

Total substation output at "Gate-way", 75,811,628 K. W. H.

Cost per K. W. H. on this basis (depreciation and return included) is $1,303,117.11 ÷ 75,811,628) 1.718 cents or $.01718).

[fol. 209] The Martinsville local operating expenses for 1929 exclusive of the item of power cost totalled $22,674.54 (See Finding No. XL). If to this is added $3,383.56 for annual depreciation and 7% on $102,947 (value of Martinsville local property) the total is $23,264.41. Subtracting this amount from the operating revenues the rates would yield in the sum of $84,570.13, there would be left $51,305.72 available for cost of power at the Martinsville gateway. Dividing this available sum by 2,532.798 Kw. H. (the amount of current delivered at the Martinsville gateway in 1929), the result is 2.021 cents or $.02021 per Kw. H. which could have been paid for power at the Martinsville gateway in 1929 and still have enough left out of the revenues these rates would have yielded to pay all operating expenses, 4% depreciation and a 7% return on $102,947.

If the power delivered at the Martinville gateway were computed at the rate of .01718 hereinbefore calculated, the power cost for 1929 would have been $43,513.46. If to this cost are added the other local operating expenses and depreciation the total operating expenses after depreciation would be $69,571.58, leaving $14,998.55 of the $84,520.13 the rates would yield available for return. This would make a return of 14+% on $102,947.

[fol. 210] XLIII

Gateway Method Applied to Year Ending May 31, 1930, Using Gateway Rate $.01718

If the Gateway method is used for the twelve month period ending May 31, 1930, and power is computed at a gateway rate of $.01718 per Kw. H., I recapitulate and find as follows:

Gross revenue under rates prescribed by Public Service Commission $81,868.72

Expenses

Power—2,528,511 Kw. H. @ $.01718	$43,465.10	
Distribution	5,607.82	
Utilization	1,499.58	
Commercial	2,255.72	
New Business	2,590.39	
General & Miscellaneous	10,432.88	
Uncollectable Acc'ts	578.00	
Taxes	2,579.98	
Rate Expense	400.00	
Total	$69,409.47	
Indirect charges to construction credit	4,920.25	
	$64,489.22	
Depreciation for Martinsville local	3,383.56	
Total Expense		$67,872.78
Leaving a balance for return of		$13,995.94

and which is in excess of 7% on what I have hereinbefore found was the fair value ($102,947) of Martinsville local property. That balance on that value would make a return of 13+%.

[fol. 211] XLIV

In 1927 the average cost per Kw. H. actually sold by plaintiff to Martinsville, (sub-station input) as shown by its own books, was (Ex. 111-67) ..... $.0147
In 1928 it was (Ex. 111-67) ..... .0134
In 1929 it was (Ex. 107-47) ..... .0133

Total ..... .0414
or an average of ..... .0138

In arriving at the above figures the company took the total sub-station readings for each month and deducted therefrom current purchased direct, which gave the net power system input; it then took the total Martinsville readings for each month and obtained the percentage of Martinsville readings to the total sub-station readings; it then figured total power cost, which included power pur-

chased, steam power generation, transmission expenses, sub-station expenses, general expenses and taxes, deducted direct purchases and thus arrived at the net apportionable power costs for the whole system. It then applied the percentage of current delivered to Martinsville to the net apportionable power cost, which gave it the proper apportionable power costs to Martinsville.

However, in the above figures nothing is included to take care of depreciation and return: proper allowance should be made for these: I have found and allowed for a depreciation of 4% on $2,569,395, or $102,775.80
and provided for a 7% return on $3,066,395, or 214,647.65

Total $317,423.45

The cost per Kw. H. to produce and provide for such 4% depreciation and 7% return, based on 75,811,628 Kw. H. [fol. 212] for the year 1929, would be $.0042—, which, added to the above average for the three years of 1927, 1928 and 1929, would make $.018 per Kw. H. at Martinsville, and which amount I find to be a fair and adequate gateway rate for Martinsville.

XLV

Gateway Method Applied for 1929, Using $.018 per Kw. H.

If the Gateway Method and the calendar year of 1929 are used as the basis of computation of the proper rate of return herein, I recapitulate and find as follows:

Gross Income Under Rates Prescribed by Commission for year 1929 ..... $84,750.13

Expenses

Power—2,532.790 Kw. H. @ $.018	$45,590.21
Distribution	5,111.28
Consumption	1,475.80
Commercial	2,671.10
New Business	3,038.92
General and Miscellaneous (less rate case expense)	9,731.27
Taxes	2,527.23
Rate Expense	400.00
Appliance Sales—Loss	503.56
Total	$71,049.37

Indirect charge to Construction Credit	2,784.60	
	$68,264.77	
Depreciation for Martinsville Local	3,383.56	
Total	$71,648.33	71,648.33
Leaving a balance for return of		$13,101.80

and which amount is in excess of 7% of what I have hereinbefore found ($102,947) is the fair value of Martinsville Local Property.

[fol. 213] XLVI

Gateway Method Applied for Year Ending May 31, 1930, Using $.018 per Kw. H.

If the Gateway Method and the year ending May 31, 1930, are used as the basis for computation herein, I recapitulate and find as follows:

Gross Income Under Rates Prescribed by Public Service Commission		$81,868.72
Expenses		
Power—2,528,511 Kw. H. @ $.018	$45,513.20	
Distribution	5,607.82	
Utilization	1,499.58	
Commercial	2,255.72	
New Business	2,590.39	
General & Miscellaneous	10,432.88	
Uncollectible Accounts	578.06	
Taxes	2,579.98	
Rate Expense	400.00	
Total	$71,457.63	
Indirect charges to Construction—Credit	4,920.25	
	$66,537.38	
Depreciation for Martinsville Local	3,383.56	
	$69,920.94	69,920.94
Leaving a balance for return of		$11,967.78

and which amount is in excess of 7% return on what I have hereinbefore found ($102,947) to be the fair value of Martinsville Local Property.

[fol. 214] XLVII

The only evidence as to value of plaintiff's electric property as a whole was offered by the plaintiff. Spooner & Merrill, by their inventory and appraisement, testified that the value of plaintiff's electric property as a whole was $5,556,091.00. Included in this value of the property as a whole was power system property, which Spooner & Merrill valued at $3,637,600.00. I have heretofore found in finding No. 22 on page 48, that the value of this power system property is only $3,017,381.00, so that Spooner & Merrill's value of the entire property is $620,219.00 excessive. Also included in Spooner & Merrill's total valuation is $135,402.00 as the value of Martinsville local property. I have already found the value of this property to be only $102,947.00, so that on this account, the Spooner & Merrill appraisal of the entire property is excessive to the amount of $32,455.00. Their excessive value of the power system property, plus the excessive value of the Martinsville local property, aggregates $652,674.00, which would leave Spooner & Merrill's valuation of plaintiff's entire electric property, after making deductions for excessive values for power system property and Martinsville local property, in the sum of $4,903,417.00.

Spooner & Merrill valued plaintiff's power system property at $3,637,600.00 and valued plaintiff's Martinsville local property at $135,402.00, or a total for power system property and Martinsville local property of $3,773,002.00. I have found the value of the power system property to be only $3,017,381.00, and I have found the value of Martinsville local property to be only $102,947.00, or a total for the two classes of property of $3,120,328.00. This is 82.7% of Spooner & Merrill's valuation of the same property [fol. 215] included in their valuation of the entire electric property. I think I may assume that Spooner & Merrill's valuation of plaintiff's entire electric property is upon the same basis as their valuation of the power system property and the Martinsville local property and that therefore 82.7% of their valuation of $5,556,091.00 is not far

from the fair value of the entire property. 82.7% of $5,556,091.00 is $4,594,887.00, and I find the value of plaintiff's entire electric property as of April 30, 1930, to be not less than $4,594,887.00. By similar method, I find the value of plaintiff's depreciable property was on April 30, 1930, not less than $4,341,364.00.

Exhibit 107, at page 39, shows plaintiff's net operating revenue for the calendar year 1929 to have been $393,-749.00. This, however, includes nothing for depreciation. 4% of the plaintiff's depreciable property, the value of which I found above, would be $202,905.00, which would leave operating revenue, after deduction of depreciation for the calendar year 1929 in the sum of $190,844.00. Defendants' witnesses testified that, if the rates complained of had been in effect in Martinsville during the year 1929, the difference in revenue would have amounted to $14,-800.00. Deducting this sum, we have left $186,044.00 as revenue for 1929, giving effect to the rates complained of. However, in 1929, there was included in expense $5180.00 for rate expense, which I have elsewhere in these findings found to be unjustifiable. Instead of that sum only $400.00 is properly chargeable. Adding the larger amount and deducting the smaller amount, I find the net revenue of the plaintiff from its entire electric business for the year 1929, [fol. 216] available for return upon the value of its property, to be $190,824.00, which is equivalent of a return of 4.15% upon the value of its entire electric property of $4,594,877.00, which I have found above.

I do not believe that the rates complained of should be tested on a system wide basis and I reject the system wide basis for fixing rates, but find the facts to be as above set out.

[fol. 217] XLVIII

I find that there was no substantial increase or decrease in the cost of reproduction of plaintiff's property, either as to Martinsville Local, or its Power System Property, at any time from February 1, 1929 to September 19, 1930, and that the value thereof was the same throughout said period of time, save and except, however, as to the cost of copper: from February 1, 1929 to May 1, 1930, the price of copper remained substantially the same: about May 1, 1930, it took a downward trend and by September 1,

1930 it had dropped to such an extent that the amount of copper necessary to reproduce the Power System Property of plaintiff could have been purchased for $124,858 less than what the same copper was worth, or would have cost, on February 1, 1929, and the amount of copper necessary to reproduce the Martinsville Local could have been purchased for $1,397 less than what the same copper was worth, or would have cost, on February 1, 1929.

[fols. 218-225] XLIX

Under the facts in this case, I am of the opinion, and so find, that the rate base herein should be obtained by taking the value of Martinsville Local at $102,947, and adding thereto $101,191.00, being the proportionate part of plaintiff's Power System Property which I find should be allocated to Martinsville, making a total value of $204,138.00 on February 1st, 1929, of plaintiff's property, and which amount I find to have been the fair and reasonable value of plaintiff's property actually used and useful by it for the convenience of the public at said time, including the element of giving weight to the reasonable cost of bringing such property to its then state of efficiency.

* * * * * * *

[fol. 226] LIII

The evidence taken before me has all been transcribed and is returned herewith in four bound volumes, containing 2479 pages; also a separate volume of Index. In the Index will be found a complete list and reference to, and description of, each and all of the separate and several Exhibits offered by the parties, and a reference to the page of the record showing the admission or rejection of the several Exhibits. All Exhibits offered by the respective parties, whether admitted or rejected, are returned into court with this report.

In addition to the time spent in hearing the evidence and argument of counsel, I was engaged on February 10, 11, 12, March 6, 7, 24, 25, 26, 30, 31, April 1, 7, 8, 9, 16, 21, 22 and May 9, together with several other parts of days during said time, in studying the record, reading the briefs, examining authorities and preparing this report.

[fols. 227 & 228] Conclusions

My conclusions of law upon the foregoing facts, and my recommendations herein, are as follows:

First

That the rates complained of by the plaintiff and set out in Finding No. VI herein are not confiscatory and do not take plaintiff's property without due process of law.

Second

That the defendants should not be enjoined from enforcing the rates set out in Finding No. VI herein.

Third

That the injunction hereinbefore granted against the defendants enjoining the enforcement of the rates set out in Finding No. VI herein should be dissolved.

Fourth

That the Bill should be dismissed for want of equity.

Dated at Indianapolis, Indiana, this 2nd day of July, 1931.

Respectfully submitted.

Albert Ward, Special Master.

[fol. 229] In United States District Court

[Title omitted]

Exceptions of Plaintiff Wabash Valley Electric Company to Report of Special Master—Filed July 22, 1931

Wabash Valley Electric Company, plaintiff in the above entitled cause, hereby excepts to the report of the Special Master filed herein on July 2, 1931, and separately and severally to each of the following findings and conclusions stated therein, to-wit:

1. To finding number XIX (p. 41) wherein the Special Master finds that the value of the local property of plain-

tiff in Martinsville that is actually used and useful for the convenience of the public in the service of electrical energy to Martinsville on May 1, 1930, was $102,947.00, for the reason that said value is too low, the fair value of said property being on said date, according to a fair preponderance of the evidence in this case, $135,402.00 (see Exhibit 2H).

[fol. 230] 2. To finding number XIX-½ (p. 43-½) wherein the Special Master finds that the value of plaintiff's local property in Martinsville that is actually used and useful for the convenience of the public in the service of electrical energy to Martinsville on February 1, 1929, was $102,947.00, for the reason that said value is too low, the fair value of said property being on said date, according to a fair preponderance of the evidence in this case $135,402.00 (see Exhibit 2H and Finding XIX-½, p. 43-½).

3. To finding number XXII (p. 47) wherein the Special Master finds that the value of plaintiff's power system property that is actually used and useful for the convenience of the public in the service of electrical energy to Martinsville on May 1, 1930, was $3,066,395.00, for the reason that said value is too low, the fair value of said property being on said date, according to a fair preponderance of the evidence in this case, $3,637,650.00 (see Exhibit 22, p. 10).

4. To finding number XXII-½ (p. 47-½) wherein the Special Master finds that the value of plaintiff's power system property actually used and useful for the convenience of the public in the service of electrical energy to Martinsvile on February 1, 1929, was $2,621,830.00, for the reason that said value is too low, the fair value of said property being on said date, according to a fair preponderance of all the evidence in this case, $3,360,999.00 (see Exhibit 21, p. 5).

5. To finding number XXLVII (pp. 98 to 100) wherein the Special Master finds that the value of plaintiff's entire electric property actually used and useful for the convenience of the public in the service of electrical energy on April 30, 1930, was $4,594,887.00, for the reason that said [fol. 231] value is too low, the fair value of said property being on said date, according to a fair preponderance of all

the evidence in this case, $5,556,091.00 (see Exhibit 20, p. A).

6. To the failure of the Special Master to find the value of plaintiff's entire electric property used and useful for the convenience of the public in the service of electrical energy on February 1, 1929. The value on said date was $5,026,437.00 (see Exhibit 21, p. 6), and there should have been a finding in that sum.

7. To that part of finding number XXXV (p. 76 at 78) wherein the Special Master finds that in fixing values of plaintiff's property for the purpose of this case, nothing should be included for cost of financing. (See testimony of Messrs. Kelley, Pennington, Spooner, Burnell and Schiesz).

8. To that part of finding number XII (at p. 28) wherein the Master found that the unit prices used in making up the appraisal of the Stone & Webster Engineering Corporation are too high and the amounts added thereto for general construction costs are unwarranted and their allowance for organization, working capital, cost of financing, and going value is exorbitant and unreasonable in each case.

9. To that part of finding number XXXII (p. 69 at 73) wherein the Special Master finds that the percent of depreciation allowance should be applied to the present value, giving consideration to the cost of reproduction new of the property less a reasonable amount for depreciation, instead of applying said percent of depreciation allowance to the reproduction new value of the property without depreciation.

10. To that part of finding XXIII-½ (p. 52) wherein the Special Master finds that the value of plaintiff's three [fol. 232] generating plants was on February 1, 1929, $309,388.00, for the reason that said value is too low, the fair value of said generating plants being on said date, according to a fair preponderance of all the evidence in this case, $424,282.00 (see Exhibit 2-I, p. 1, and testimony of Messrs. Spooner, Cook, Burnell and Sittinger).

11. To finding number XXIII (pp. 49 to 51) wherein the Special Master finds that the unit prices adopted and used

by the witness Abbett in determining the value of plaintiff's property and his allowance for depreciation are fair and reasonable, for the reason that said unit prices are too low and said allowance for depreciation is too high. (See Exhibits 2-A to 2-I, both inclusive, and testimony of Messrs. Spooner, Cook, Burnell and Sittinger.)

12. To finding number XLIV (pp. 95 and 96) wherein the Special Master finds that a fair and adequate gateway rate for Martinsville is $.018. If a gateway price should have been found, or is material, then same should have been $.024996 per K. W. H. as of February 1, 1929 (See Exhibit 21, p. 4), and it should have been $.024183 per K. W. H. as of May 31, 1930 (See Exhibit 22, p. 6).

13. To finding number XXVIII (p. 60) wherein the Special Master considers apportionment of power system property value to Martinsville and finds that an apportionment of power system property value to Martinsville on the basis of 3.30% of the whole power system value is fair, and finds that $101,191.00 is the fair value of plaintiff's power system property to be apportioned to Martinsville and that the total rate base upon which plaintiff is entitled to earn a fair return out of revenues derived from rates at Martinsville is $204,138.00. If power system property is to be allocated to Martinsville on a percentage basis, then percent should be not less than 6.63% and the amount thereof to be [fol. 233] apportioned should be not less than $222,063.00. (See Exhibits 2-A to 2-I, inclusive, and Exhibits 7 and 8, and testimony of Messrs. Spooner, Cook, Burnell, Sittinger and Schiesz.)

14. To that part of finding number XXX (p. 64) wherein the Special Master finds that electric current furnished by plaintiff to affiliated companies should not be eliminated in arriving at a rate base, i. e., that in determining the proportionate part of power system value to be allocated to Martinsville and determining the proportionate part of power system expense to be allocated to Martinsville, the denominator of the fraction (of which Martinsville deliveries or demand, depending on the method used, is the numerator) shall include the deliveries to or the demand of the affiliated companies, depending upon whether the proportion is based upon deliveries or demand; and also to that

part of said finding, wherein the Special Master finds that, if an allocation of plaintiff's power system property is to be made and charged to Martinsville in connection with the establishment of a proper rate base herein, the amount thereof should not exceed $101,191.00. If a separate rate base for Martinsville is to be fixed, then in determining it current furnished to affiliated companies should be eliminated and the amount of power system property to be allocated to Martinsville should be not less than $222,083.00. (See Exhibits 21 and 22, and 2-A to 2-I, inclusive, and testimony of Messrs. Spooner, Cook, Burnell, Sittinger & Schiesz.)

15. To finding number XLIX (p. 102) wherein the Special Master finds that the rate base herein should be obtained by taking the value of Martinsville local property at $102,947.00, and adding thereto $101,191.00, being the proportionate part of plaintiff's power system property which the Special Master finds should be allocated to Martinsville, making a total of $204,138.00 on February 1, 1929, of plain- [fol. 234] tiff's property, which amount the Special Master finds to have been the fair and reasonable value of plaintiff's property actually used and useful by it for the convenience of the public at said time, including the element of giving weight to the reasonable cost of bringing such property to its then state of efficiency. A fair consideration of all the evidence would result in a valuation of the Martinsville local property at $114,650 00, and a fair valuation of power system property to be allocated to the Martinsville rate base, if Martinsville is to be treated as a segregated unit, of $222,063.00, making a total of $336,713.00 as the fair and reasonable value of plaintiff's property actually used and useful by it for the convenience of the public at Martinsville, if Martinsville is to be treated as a segregated unit. (See Exhibits 2-A to 2-I, also Exhibits 7 and 8, also testimony of Messrs. Spooner, Cook, Burnell, Sittinger and Schiesz.)

16. To that part of finding number XXX-½ (p. 64-½) wherein the Special Master finds that it is not fair to plaintiff's customers at Martinsville and to its other customers within its own territory to require them to pay rates sufficient to pay all operating expenses, depreciation and return on plaintiff's power system property as the same exists and is being used.

17. To that part of finding number XLVII (p. 98 at 100) wherein the Special Master rejects the method of testing the rates complained of on a basis of plaintiff's entire electric net revenue applied to the value of its entire used and useful electric property.

18. To that part of finding XXIX (p. 61) wherein the Special Master finds that the whole of plaintiff's electric property should not be considered in establishing the rate base in this case and that the test of the adequacy of rates [fol. 235] is not whether or not with a particular rate in effect an adequate return will be earned by plaintiff's entire electric business based upon the fair value of its entire electric property used and useful in its electric business as a whole. Also to that part of said finding, in which the Master holds that it was the spirit of the statute and the intent of the legislators that rates should be fixed upon the basis of the reasonable value of the property actually used and useful in the service of each community separately.

19. To finding number XXXI (pp. 65 to 68) wherein the Special Master finds that the amounts charged in plaintiff's operating account, to-wit: $5180.65 in the calendar year 1929 and $6235.98 in the year ending May 31, 1930, are exorbitant and unreasonable and that there should be included in plaintiff's expense and operating accounts only the sum of $400.00 per year for a period of ten years for the expense of this rate case, for the reason that it was the uncontradicted evidence that plaintiff's total expense in connection with this case up to May 31, 1930, had been approximately $60,000.00, and the management of plaintiff's property had amortized said total expense and charged $5180.65 thereof to operating expenses during the year 1929, and $6235.98 thereof to operating expenses during the year ending May 31, 1930, and for the further reason that there was no evidence that said expenses were unreasonable, but, on the contrary, the fair inference from all the evidence was that same were fair and reasonable. (See testimony of Messrs. Schiesz, Spooner and Cook.)

20. To that part of finding XXXI (p. 68) wherein the Special Master finds that the character of defense to be made by a utility in rate cases and the extent of prepara-

tion therefor and the cost thereof is not a matter which [fol. 236] should be reposed in the sound judgment of the management of the utility, and to his resultant finding that the same is a matter for determination by the Public Service Commission of Indiana, and to his approval of the action of the Public Service Commission of Indiana in limiting the amount of such expense for this case to $4,000.00 amortized at the rate of $400.00 a year over a period of ten years.

21. To finding number XXXVI (p. 80) wherein the Special Master finds that a return of 7% upon the fair value of plaintiff's used and useful property would be a fair and reasonable allowance to plaintiff in this action. A fair return would be not less than 8%. (See testimony of Messrs. Spooner and Burnell.)

22. To finding number XL (p. 88) wherein the Special Master finds that, if the method of allocating plaintiff's power system property to Martinsville is adopted and the calendar year of 1929 is used as the basis for testing the reasonableness of the rates complained of, they would have yielded a fair rate of return on the fair value of plaintiff's property used and useful in giving the service to which the rates apply, and that they would have left net for return $22,499.59. If the method indicated in this finding is adopted and the method used in said finding is followed, the rates complained of would have left for net return on the fair value of plaintiff's property used and useful in giving the service to which the rates apply of only $6121.10, which provides a return of only 1.82% upon the sum of $336,713.00, which is the fair value of said property, if power system property is to be allocated to the Martinsville rate base. (See Exhibits 2-A to 2-I, also Exhibits 7 and 8, also testimony of Messrs. Spooner, Cook, Burnell, Sittinger, Andrus and Schiesz.)

23. To finding number XLI (p. 90) wherein the Special [fol. 237] Master finds that, if the rates complained of had been in effect during the twelve months period ending May 31, 1930, there would be a net revenue of $20,440.18 for return upon the combined value ($204,138.00) of the Martinsville local property and the allocable part of plaintiff's power system property. The combined value of the Mar-

tinsville local property and the allocable part of plaintiff's power system property amounts to $336,713.00, instead of $204,138.00 found and used by the Master in this finding, and instead of a net revenue of $20,440.18 for return upon such combined value, there would have been a net revenue of only $2978.69 for return thereon. (Exhibits 2-A to 2-I, also Exhibits 7 and 8, also testimony of Messrs. Spooner, Cook, Burnell, Sittinger, Andrus and Schiesz.)

24. To finding number XLV (p. 96) wherein the Special Master finds that, if the gateway method of charging power to Martinsville and the calendar year of 1929 are used as the basis of computation of rate of return, there would be a balance of $13,101.80 available to pay return upon the fair value of ($102,947.00) the Martinsville local property. If the gateway method of charging power to Martinsville and the calendar year of 1929 are used as the basis of computation of rate of return, there would be an operating deficit of $10,488.66, instead of the sum found by the Master to be available to pay return on the fair value of the Martinsville local property, which fair value is $114,650.00, instead of $102,947.00 indicated by the Master in this finding (See Exhibits 2-A to 2-I, also Exhibits 7 and 8, also testimony of Messrs. Spooner, Cook, Burnell, Sittinger, Andrus and Schiesz).

25. To finding number XLVI (p. 97) wherein the Special Master finds that, if the gateway method of charging power to Martinsville and the year ending May 31, 1930, are used as a basis for computation, there would be net revenue of $11,967.78 available for return on the fair value ($102,-947.00) of the Martinsville local property. If the gateway [fol. 238] method of charging power to Martinsville and the year ending May 31, 1930, are used as a basis for computation, there would be an operating deficit of $12,666.76 with nothing for return on the fair value of Martinsville local property, which fair value would be $114,650.00, instead of $102,947.00, the figure indicated by the Master in this finding. (See Exhibits 2-A to 2-I, also exhibits 7 and 8, also testimony of Messrs. Spooner, Cook, Burnell, Sittinger, Andrus and Schiesz.)

26. To finding number LI (pp. 104 to 106) wherein the Special Master finds that the evidence of defendants' wit-

ness Husselman should be admitted and considered when it appeared without contradiction that said Husselman was employed by the intervenor City of Martinsville upon a basis whereby his compensation was contingent upon the result of this case and was to be 25% of the saving made in one year by the citizens of Martinsville by reason of difference between rates being paid and rates established as the result of this case, because such a contract is contrary to public policy and to permit such a witness was and is contrary to public policy.

27. To the Special Master's First conclusion of law that the rates complained of are not confiscatory and do not take plaintiff's property without due process of law.

28. To the Special Master's Second conclusion of law that the defendants should not be enjoined from enforcing the rates complained of.

29. To the Special Master's Third conclusion of law that the injunction hereinbefore granted against the defendants enjoining the enforcement of the rates herein complained of should be dissolved.

[fol. 239] 30. To the Special Master's Fourth conclusion of law that the bill herein should be dismissed for want of equity.

Wherefore plaintiff prays that the foregoing exceptions, and each of them, be sustained and that said report of the Special Master herein be disapproved and not confirmed and that a decree be entered herein enjoining the enforcement of the rates complained of herein and containing such other provisions and requirements as to this Honorable Court may seem just and equitable in the premises.

P. J. Lucey, Glenn Van Auken, S. C. Kivett, Fesler, Elam & Young, Cooke, Sullivan & Ricks, Solicitors for Plaintiff. Of Counsel: Howard S. Young.

[fol. 240] IN UNITED STATES DISTRICT COURT

ORDER SUBSTITUTING PARTIES DEFENDANT—Dec. 18, 1931

Come now the parties and it is represented to the Court that Jere West has succeeded the defendant Harvey Har-

mon, as a member of the Public Service Commission of Indiana, and that Harry K. Cuthbertson has succeeded the defendant Calvin McIntosh, as a member of the Public Service Commission of Indiana.

Upon motion of the plaintiff, it is ordered that Jere West be, and he is hereby, substituted as a defendant herein in place of said Harvey Harmon, and that Harry K. Cuthbertson be, and he is hereby, substituted as a defendant herein in place of said Calvin McIntosh, both as members of the Public Service Commission of Indiana.

[fols. 241 & 242] IN UNITED STATES DISTRICT COURT

ORDER ALLOWING SPECIAL MASTER'S FEE—Dec. 18, 1931

It is ordered by the Court that Albert Ward be and he is hereby allowed the sum of Four Thousand Five Hundred Dollars ($4,500.00) for his services as Special Master in this cause.

[fol. 243] IN UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF INDIANA, INDIANAPOLIS DIVISION

In Equity. No. 1178

WABASH VALLEY ELECTRIC COMPANY, Plaintiff,

vs.

FRANK T. SINGLETON et al., Defendants

Before Sparks, Circuit Judge, and Baltzell and Slick, District Judges

OPINION—Filed Feb. 26, 1932

BALTZELL, District Judge:

This is an action in which the plaintiff, an Indiana corporation, is seeking to enjoin the defendant, Public Service Commission of Indiana, from the enforcement of an order wherein a schedule of rates was fixed by it for electricity

furnished by plaintiff to the city of Martinsville, Indiana, and the inhabitants thereof. Other defendants, aside from the individual members of the Public Service Commission, are Harry G. Leslie, Governor of the State of Indiana, and James M. Ogden, Attorney General of the State of Indiana. The city of Martinsville was permitted to intervene and file an answer in which it sought to sustain the schedule of rates, as fixed by the Commission.

The city of Martinsville has approximately five thousand inhabitants, but it has few industries that consume a large amount of electricity. A great portion of the electricity used is for domestic purposes. For a number of years the city was supplied with electricity by a local plant which was later purchased by plaintiff and is now owned by it.

In keeping with the general progress of the times, plaintiff, which is affiliated with other electric companies, purchased the electric light plant in the city of Martinsville, together with the local plants in the cities of Sullivan, Clinton, and many other cities throughout central and [fol. 244] western Indiana. It then began the construction of high tension lines, and to operate an interconnected system of electric plants throughout such territory, comprising the following thirteen counties: Sullivan, Greene, Owen, Clay, Vigo, Parke, Putnam, Morgan, Fountain, Warren, Montgomery, Vermillion and Tippecanoe. In order that its patrons might be properly served, plaintiff constructed a loop extending through each of the counties supplied by it with electricity. In the event the line in one part of the loop becomes disabled, current is furnished through the other part thereof, thus more nearly assuring current at all times. Current to supply its patrons, through this "loop system," is purchased in part from other utilities and in part supplied by the local plants owned by plaintiff. After the purchase of the local plants, however, the electricity generated by such plants ceased to be used for consumption by the locality in which such plants were situated. They were connected directly with the loop, and, combined with that furnished by other local plants and purchased from other utilities, provide electricity for the municipalities, as well as the industrial plants, coal mines, etc., located outside thereof, within such counties.

The thirteen counties furnished with electricity comprise a greater part of the Indiana coal fields, and at the

time plaintiff began its operation in these counties the coal mines were being operated extensively, requiring a great amount of current for such operation. Since that time, however, many coal mines have ceased operation, and the use of electricity in this industry has materially decreased. At the time plaintiff began its operation in these counties, practically all of the municipalities were being supplied by local plants, there being no interconnecting lines and such plants being owned by either the municipalities themselves or by private corporations. This practice has gradually been abandoned, and at the time of the filing of this suit most of the municipalities in such counties were being supplied by this plaintiff. In fact, electricity is furnished to [fol. 245] approximately fifty municipalities within such counties and to numerous industrial plants and individuals not within the corporate limits of any municipality.

In order that current may be furnished at a minimum cost, a large generating plant, known as the "Dresser Plant" was constructed on the Wabash River, near the city of Terre Haute, Vigo County, Indiana, by the Indiana Electric Corporation, which plant has a generating capacity of more than 300,000,000 KWH per year. The financing of this plant required the assemblage of a group of electric properties throughout the State of Indiana, in order that there might be guaranteed the disposal of a sufficient amount of electricity each year to justify the construction thereof. Consequently, existing electric utilities were acquired by affiliated corporations throughout Indiana, each to be connected with the Dresser Plant in order to assure economical operation. Among the affiliated corporations were the Wabash Valley Electric Company, plaintiff, Attica Electric Company, Colfax Electric Company, Indiana Electric Corporation, Northern Indiana Power Company, Moran Electric Light & Power Company, and the Mulberry Light & Power Company. The current consumed by these affiliated companies, and others not affiliated, aggregated approximately the entire capacity of such plant. Practically the entire amount of stocks, bonds and other security of these seven companies, in fact, more than ninety-nine per cent (99%) thereof, is owned by the Central Indiana Power Company. These affiliated companies have common officers and common management, although operating separately.

Through the above arrangement, light and power is furnished the city of Martinsville by plaintiff, the greater portion of which is obtained from the Dresser Plant. The plaintiff had on file with the Public Service Commission at all times, subsequent to its agreement to furnish electricity to the city of Martinsville and the inhabitants thereof, a schedule of rates approved by such Commission. On the 16th day of March, 1927, seventeen citizens of Martinsville, and patrons of plaintiff, filed with defendant commission a [fol. 246] petition seeking a reduction in such rates. Hearings upon the petition were had at various times by the Commission, and a final order was entered on the 26th day of January, 1929, effective as of February 1st following, fixing the rates and charges which plaintiff should be entitled to collect from its subscribers in Martinsville. Such order considered the municipality as the unit, in arriving at the schedule of rates. This is the order of which plaintiff complains in this suit, the enforcement of which it is seeking to enjoin, upon the ground that the rates and charges so fixed in such order are not sufficient to yield an adequate return upon plaintiff's property, used and useful, in supplying electricity to such city, its inhabitants and industries. Plaintiff contends that such rates and charges are confiscatory, deprive it of its property without due process of law, and deny it the equal protection of the law in violation of its rights under the Fourteenth Amendment to the Constitution of the United States.

A temporary restraining order, and later a temporary injunction, were issued by this court, enjoining the enforcement of such order. The temporary injunction now in force was issued, however upon the condition that in the event it is dissolved and a decree entered upon final hearing sustaining the order of the Commission, then, the plaintiff is to refund to its customers in Martinsville, or credit to their respective accounts, any sums collected in excess of those which would have been collected under the schedule of rates, as contained in the order in question. Reference was subsequently made to a Special Master for the purpose of hearing the evidence and reporting same to this court, together with his Special Findings of Fact and Conclusions of Law. The Special Master made report, to which plain-

tiff has filed thirty exceptions. Hearing was had by this court upon such report and exceptions thereto, and subsequently, this court has filed its Special Findings of Fact and Conclusion of Law, in compliance with Equity Rule 70½.

[fol. 247] The first question necessarily presented for determination is the method to be used in determining the value of plaintiff's property, used and useful in supplying electricity to the city of Martinsville. It is the contention of plaintiff that its electric property and system, as a whole, should be the unit, and that the schedule of rates and charges for Martinsville should be tested by their effect upon its entire net revenue and the relation of such net revenue to the value of its entire used and useful electric property. The defendants contend that the city of Martinsville should be considered as a segregated unit for the purpose of determining its schedule of rates. In fixing the value of plaintiff's property, used and useful, for the supplying of electricity to such city, defendant commission fixed first, the value of its local property. It next fixed the "gateway" price for all electrical current furnished by it to Martinsville, this being the price allowed for such current at the city limits. In determining this price, it took the average cost per KWH of all current handled by plaintiff through its entire system and added thereto an arbitrary amount for depreciation and return. In other words, after determining the value of the local property, used and useful, in supplying electricity for such city, and determining the "gateway" price for supplying same, then defendant commission proceeded to fix a schedule of rates therefor without regard to the effect of such procedure upon the rate of return which plaintiff will realize from its entire system upon the entire value thereof.

In order that a logical and correct conclusion may be reached, concerning the proper method to be used in determining this question, it is necessary to examine the law under which the Public Service Commission is operating. Prior to the year 1913, each municipality, through its officials, was charged with the duty of providing public utility service for such municipality and the inhabitants thereof, and was, under the law, given ample power to perform such duty. Practically every municipality within the State, the size of

Martinsville, had a light and power plant, owned either by such municipality or by a private corporation. The schedule [fol. 248] of rates was fixed by the municipality, acting through its officials, and dealing with the utility. In order that the responsibility of the fixing of rates, etc., might be removed from local officials and be centered in a body which was to be provided with expert accountants, engineers, appraisers, etc., the legislature of 1913 enacted the Public Utility Act, known as the Shively-Spencer Utility Act. At the time of the passage of this Act, the development of electrical power plants was in its infancy, as compared with the present day. The one thing that was uppermost in the minds of the legislators, in enacting their legislation, was to bring about reasonable rates and adequate service on the part of the utility on the one hand, and the municipality and its inhabitants on the other. Provision is made whereby complaint may be made as to the schedule of rates in force by either the municipality, a certain number of citizens thereof, the utility, etc., in the event they are not satisfied with the existing rates. That is to say, the Utility Act gives to either the municipality, the citizens thereof, or the utility itself, the privilege of petitioning the Public Service Commission for an adjustment of rates, etc. Shively-Spencer Utility Act. Sec. 57; Burns' Rev. Stat. 1926, Sec. 12,728. Section 9 of this Act also provides that "the Commission shall value *all* the property of every public utility actually used and useful for the convenience of the public." It is the contention of the plaintiff that this section is a direct mandate to the Commission, and that it must, therefore, make a valuation of all its property used in its entire system, as a unit, in order to determine a proper schedule of rates for the city of Martinsville. It is further contended that a reasonable return must be had upon the value of all its property, before the rates at Martinsville can be adjusted. All of its property is not used and useful for the supplying of electricity to such municipality. Much of it is used for other municipalities, industrial plants, etc., with which defendant city is not concerned. This section refers to the property that is used and [fol. 249] useful in connection with the furnishing of a utility to any municipality under consideration, in this instance, Martinsville. To give it any other construction would make the very law, which was enacted for the benefit of the municipalities and the inhabitants thereof, as well

as for the benefit of the utility, prohibitive, from the viewpoint of the public. It would make it necessary to have all the property of the entire system appraised each time a single municipality, or ten or more of its citizens, petitioned the defendant commission for a revision of its rates. The expense alone, if allowed to be taxed as an operating expense, as contended by plaintiff, would be so great that in many, if not every instance, it would result in an increase, instead of a reduction in rates.

There has been no change or modification of this Act insofar as the above provisions are concerned, and it must, therefore, be concluded that it was the intention of the legislature that the municipality should be the unit in determining the just and reasonable rates to be paid any public utility by it and its inhabitants. Many legislatures have convened subsequent to the passage of this Act, but none have seen fit to change or modify it in that particular.

Whether any division of the State, other than a municipality, shall be designated as a unit for the purpose of fixing rates for a utility, is a matter of public policy to be exercised by the legislature. Until that is done, neither the Public Service Commission, nor a court, can consider any other unit than that which is now fixed by the legislature, namely, the municipality, in establishing a schedule of rates for the services of a utility in such municipality.

The Public Utility Act of Indiana has never been construed in this particular by the Indiana Supreme Court. It is known, however, that such Act is patterned generally after the Public Utility Act of Wisconsin, and many of its provisions are identical. The Supreme Court of that State, in a well reasoned opinion, held that the Railroad Commission of Wisconsin, which is similar to the Public Service [fol. 250] Commission of Indiana, is "required to treat the municipality as a unit and base its rate upon the cost to the utility of serving the individual municipality, rather than the average cost of serving many districts and scattered municipalities." City of Eau Claire, et al. v. Railroad Commission, 189 N. W. 476.

The Special Master found the value of plaintiff's property used and useful, for supplying electricity to defendant municipality, to be somewhat in excess of that as fixed by the Commission, but he further found that the schedule of rates, as fixed by the Commission will yield a net income

which is a reasonable return upon the value, as fixed by him. This court has approved the finding of the Master insofar as the value of plaintiff's property is concerned, and in its Special Findings of Fact filed in this cause has found the value of the local plant at Martinsville to be $102,947.00, and has found the value of all other of plaintiff's property which is used and useful in supplying electricity to such city, to be $101,191.00, a total value of $204,-138.00. If the schedule of rates, as fixed by the Commission, is sufficient to yield a reasonable return upon the valuation, as found by this court, then the order of which complaint is made cannot be disturbed, even though the valuation, as fixed by the Commission, is much too low. It is the function of the court to determine whether or not the rates, as fixed by the Commission, yield such a small return upon the value of plaintiff's property (considering the municipality as a unit) as to amount to confiscation, and thereby violate the Constitution of the United States. The Minnesota Rate Cases, 230 U. S. 352; 57 L. Ed. 1511; 33 S. Ct. 729, San Diego Land & Town Co. v. Jasper, 189 U. S. 439; 47 L. Ed. 892; 23 S. Ct. 571.

It is the contention of the plaintiff that the valuation of its property, even though the Commission used the proper method, is too low. It is further contended that the schedule of rates provided in the order is insufficient to yield a reasonable return upon the value of its property.

The Commission found the value of the local property [fol. 251] at Martinsville to be $87,000.00. Such property consisted of poles, towers, overhead conductors, transformers, land, etc. This property was appraised by a Mr. Abbett, engineer for the Commission who testified before the Master as to the manner in which he fixed the valuation of each particular item. It was also appraised for plaintiff by Spooner & Merrill, a reputable engineering firm. These engineers differ as to the manner in which their appraisals were made, and consequently, their conclusions vary somewhat. The Master heard the testimony of these engineers, as well as the testimony of all of the other witnesses, and is qualified to determine the weight and credit to be given to such testimony. In arriving at his conclusion, as to the value of such property, it is sufficient to say that he considered properly the cost of reproduction new, of all physical property, and fixed its depreciated value at $84,589.00. To

this he added the sum of $3,358.00 for "Working Capital;" the sum of $6,500.00 for "Material and Supplies," and the sum of $8,500.00 for "Going Value;" making a total added to the value of the physical property of $18,358.00. These items are all proper to be considered in determining the value of a utility property for rate-making purposes and are all that should be considered in this case, in arriving at that value. These items, in general, are computed, by experts, found upon well defined rules and upon experience, yet, they are not and cannot be as accurate as an appraisal of something actually in existence. When it is recalled, in the instant case, that an amount in the sum of approximately $18,000.00 for this purpose is added to the sum of $84,569.00 the value of the physical property, it would clearly indicate that such amount is sufficient.

An inventory and appraisal of all property, classified as the "power system" was made by both the engineer for the Commission and the engineers for plaintiff. This appraisal correctly excludes all local distribution property which is not in any manner used and useful in supplying current to Martinsville. Included in this inventory are three generating plants in their entirety. The appraisal of [fol. 252] the engineers again differs in some particulars, and it was necessary for the Master to determine the value from all the evidence. The value depreciated at the date of the order of all of plaintiff's physical power system, used and useful for supplying electricity to the public generally, among which was Martinsville and its inhabitants, and exclusive of the value of the local plant, is $2,124,830.00. To this was added the following, all of which are proper:

Working Capital	$80,000.00
Fuel stock	5,000.00
Material & Supplies	162,000.00
Going Value	250,000.00
Total	$497,000.00

This makes a total value depreciated in the sum of $2,621,830.00 as of the date of the order. Between that date and the date of the hearing, May, 1930, there had been additional capital added in the sum of $444,565.00, making the

value of the property, at the date of the hearing, $3,066,-395.00.

The question of the method to be used in allocating a proper portion of this value to Martinsville is the next to be considered and is one that is not free from difficulty. The records of plaintiff disclose the total sales of Kw. H. during each year. Such records also disclose the sales of Kw. H. to the city of Martinsville by plaintiff for the same period of time. Bearing in mind the fact that the plaintiff is only a distributing utility, that it purchases practically all of its current from another utility, with which it is affiliated, it appears that the most logical and equitable method of making this allocation is on the basis of the ratio of actual sales of Kw. H. to Martinsville and its consumers to the total sales of Kw. H. by plaintiff during the year 1929, that being the last calendar year before the date of the hearing. By the use of actual sales figures, line and transformation losses are accounted for. One of the Commission's engineers made a calculation upon this basis and found the ratio to be 3.027 per cent. However, a calculation, based upon the output of the substation at Martinsville for the year 1929, which was 2,532,798 Kw. H., and [fol. 253] the total output of all sub-stations of plaintiff during the same period, which was 75,811,626 Kw. H., shows the ratio to be 3.34 per cent. The various calculations are comparatively close, several calculations other than the above having been introduced in evidence.

A study of all the evidence upon this question convinces us that a ratio of 3.30 per cent is fair and is the one that should be used, in arriving at the value of that part of plaintiff's power system which should be allocated to Martinsville. Applying this method, we find such value to be $101,-191.00. The maximum value of such allocated property, fixed by the commission's engineer as shown by the evidence presented to the Master, was $86,825.00.

It is contended by the plaintiff that an allowance should have been made for the "Cost of Financing" in determining the value of its property at Martinsville and the value of that part of all its property allocable thereto. This has been held in some instances to be a proper charge. In the instant case, however, there is no evidence that such a cost was incurred, or, in the event of reconstruction, that it would be necessary to incur such an expense. The Master prop-

erly refused to make an allowance for this item. Vincennes Water Supply Co. v. Public Service Commission, (C. C. A. 7th) 34 F. (2d) 5.

In fixing the value, therefore of plaintiff's property, to be used as the rate base for Martinsville, and upon which it is entitled to a reasonable return, there should be added the following:

Value of local property	$102,947 00
Value of power system, allocated to Martinsville	101,191 00
Total	$204,138 00

It is apparent that this valuation is in excess of that fixed by the Commission. This fact is of no importance, however, if the net revenue received by plaintiff, through the operation of the schedule of rates provided in the order in question, is sufficient to constitute a reasonable return upon the value, as found by the court.

[fol. 254] Therefore, the next and final question to be determined is whether or not the schedule of rates, as fixed by the order of the Commission, will yield a reasonable return upon the value of plaintiff's property, as found by this court, that is, upon the sum of $204,138.00. There is no fixed rule by which to determine the rate of return to which a public utility is entitled. Each case must be considered separately, and much depends upon the circumstances and the locality. Upon this question it has been said by the United States Supreme Court that "among other things, the amount of risk in the business is a most important factor, as well as the locality where the business is conducted, and the rate expected and usually realized in such locality upon investments of a somewhat similar nature with regard to the risk attending them." Wilcox v. Consolidated Gas Co. 212 U. S. 19; 53 L. Ed. 382; 29 S. Ct. 192.

This court has, at various times, fixed different rates of return, depending upon all of the surrounding circumstances, as shown in each particular case. For instance, in the case of Greencastle Water Works v. Public Service Commission, et al., 31 F. (2d) 600, the rate of return was fixed at six and one-half per cent (6½%), and the utility is operating under an order prepared by the Commission pro-

viding for such return and has been so operating for several years. In the case of McCardle, et al. v. Indianapolis Water Works, the Supreme Court of the United States affirmed a judgment of this court fixing the rate of return at seven per cent (7%). 272 U. S. 400; 71 L. Ed. 316; 47 S. Ct. 144.

The business in which plaintiff is engaged is not surrounded by any unusual hazards, although competition in that field is rather keen. The demand for electrical current is increasing from year to year, rather than diminishing, and plaintiff and its affiliated companies comprise one of the largest groups engaged in the manufacture and distribution thereof in the country. A return of seven per cent (7%) upon the value, as fixed by this court, will yield a reasonable return upon such value.

[fol. 255] If the schedule of rates provided by the order in question had been in effect during the year 1929, the gross revenue received by plaintiff in Martinsville would have been $84,750.13. If in effect during the year ending May 31, 1930, the date of the hearing in this case, such gross revenue for the year ending upon that date would have been $81,868.72. There is no dispute as to the gross revenue that would have been received during these periods, but the dispute arises as to the proper operating charges. It is fair to consider the year ending May 31, 1930, as a basis for the testing of the schedule of rates in question in determining whether or not they provide a reasonable return. The total operating expense to which plaintiff is entitled to deduct from its gross income during this period for distribution, utilization, commercial, new business, general and miscellaneous, taxes, uncollected accounts, amount to $25,544.43. To this amount must be added cost of power and the reasonable expense of this rate hearing. In other words, there must be fixed a price which plaintiff will be permitted to charge as an operating expense for the electric current delivered to Martinsville, which has been referred to as the "gateway" price. It is not an easy problem to determine the method to be adopted in determining this price. It is the contention of the plaintiff that the correct method to determine the proper "gateway" charge at Martinsville is to include all electricity delivered by it to all gateways. This would necessarily exclude that delivered to its affili-

ated companies, a great amount of which is delivered to the Attica Electric Company, and to the Northern Indiana Power Company. Using this method, the plaintiff contends that the proper charge is $.022897 per KWH, which, applied to the year ending May 31, 1930, in which there was delivered to Martinsville 2,528,511 KWH, the total charge for electrical current for that eriod would be $57,895.32. In arriving at this "gateway" charge, the plaintiff considers its entire power system operating expense, which is more than one million dollars, and deducts therefrom operating expenses and taxes on property which it allocates to the use of the Attica Electric Company and the Northern Indi- [fol. 256] ana Power Company. In carrying out this theory, it allocated to the Attica Electric Company and to the Northern Indiana Power Company approximately 31.9 per cent of its physical property, which it deducted from the value of all of its physical property, and fixed a rate of return of eight per cent (8%) upon the balance after making this deduction. It also figured a four per cent (4%) depreciation. The Commission fixed the proper "gateway" charge at $.0172 per KWH. It apparently arrived at this charge by a computation of the average cost per KWH during a given period of time, to which it arbitrarily added a small amount for what it considered a fair return upon the property, used and useful, in the generation of such current and its delivery to Martinsville.

This court cannot accept the method advanced by plaintiff as being the proper method to be used in determining such "gateway" charge. The plaintiff is one of several affiliated companies, included in which are the Attica Electric Company and the Northern Indiana Power Company, all under a common management and organized primarily for the purpose of disposing of the electric current generated at the Dresser Plant. The actual "gateway" cost of current delivered to Martinsville, exclusive of any allowance for depreciation and return, was $.0133 per KWH for the year ending May 31, 1930. This price is adequate, and is the price found by this court to be a proper charge for all electrical current furnished during that year to defendant city. The amount delivered was 2,528,511 KWH at $.0133, making a total of $33,629.20, which amount plaintiff is entitled to charge as an operating expense for that

year. A proper charge of four per cent (4%) for depreciation of the value of the physical property allocated to Martinsville has been allowed, but is not included in the "gateway" charge.

The other question is the amount allowed as expenses of this rate case. The Commission made an allowance of $4,000.00 amortized over a period of ten years, or a charge to operating expense of $400.00 per year. The plaintiff contends that it should be allowed a sum in excess of [fol. 257] $60,000.00 for this expense; in fact, it entered a charge on its books in the sum of $6,235.98 for rate expense for the year 1929, and charged this amount as an operating expense against Martinsville. This charge is, within itself, an answer to the theory of plaintiff as to the method to be used in determining the value of its property, that is, that it must be considered as an entirety. If a rate expense as high as that asked, approximately seventy-five per cent (75%) of the gross receipts for one year, is permitted to be charged to operating expense, it will serve as a penalty for the filing of a petition by a municipality, or its citizens, for a reduction in rates, because it will invariably culminate in an increase, rather than a reduction. The amount as fixed by the Commission, is reasonable.

A simple computation for the year ending May 31, 1930, discloses the following:

Gross Revenue	$81,868.72
Operating Expenses:	
Power—2,528,511 KWH @ $.0133	$33,629.20
Rate Expense	400.00
Other Expenses	25,544.43
Total	$59,573.63
From which should be deducted for indirect charges to "Construction" the sum of	4,920.25
Balance	$54,653.38

To this balance should be added four per cent (4%) of the physical value of plaintiff's property at Martinsville and of the power system, allocated thereto for depreciation, which amounts to $6,775.16, making a total operating

charge of $61,428.54, which amount, deducted from the Gross Revenue, leaves a Net Revenue in the sum of $20,440.18. This sum represents a return far in excess of seven per cent (7%) of the value of plaintiff's property ($204,138.00) which the court has found to be a reasonable return.

[fols. 258 & 259] Under this state of facts, the schedule of rates provided in the order of the Commission in question is adequate to yield a reasonable return upon plaintiff's property, used and useful, in supplying electricity to the city of Martinsville. Such rates are not confiscatory and do not violate any of plaintiff's rights under the Constitution of the United States.

The temporary injunction heretofore issued, and now in effect in this case, will be dissolved, and plaintiff will refund to its customers, or credit to their respective accounts, all sums of money which it has collected in excess of those which it would have collected under the schedule of rates as provided in the order in question. Exceptions of plaintiff to the Special Master's Report are overruled, and the bill is dismissed for want of equity.

A decree will be entered accordingly.

[fol. 260] In United States District Court for the Southern District of Indiana, Indianapolis Division

In Equity. No. 1178

Wabash Valley Electric Company, Plaintiff,

vs.

Frank T. Singleton et al., Defendants

Special Findings of Fact and Conclusions of Law—Filed Feb. 26, 1932

This cause having been, on the Court's own motion, submitted to a Special Master to take and report the evidence with his findings of fact and conclusions of law, and the plaintiff having filed exceptions to some of the Master's findings and to his conclusions of law, and the Court having examined the evidence taken and reported by the Special

Master and the Master's report of his findings of fact and conclusions of law, also said exceptions, and having heard the arguments of counsel and being duly advised in the premises, now finds the facts to be as follows:

[fol. 261] 1. Plaintiff is an Indiana public utility corporation, and is subject to regulation by the Public Service Commission of Indiana.

The defendants are the members of said Commission, the Attorney General and the Governor of Indiana, and the City of Martinsville by intervention.

This suit is of a civil nature in equity, arises under the constitution and laws of the United States, and involves more than $3,000 exclusive of interest and costs.

The schedule of rates and charges in controversy and the order of said Commission prescribing them are as they are set out in Exhibit A to the bill of complaint, and the same are incorporated here by reference.

A restraining order was issued herein on March 1, 1929, also a temporary injunction on the 6th of April following, restraining the enforcement of the rates complained of, on condition that if said rates become effective upon final hearing the plaintiff shall refund or credit to its customers at Martinsville any sums collected from them in excess of the rates complained of.

2. The City of Martinsville is located in the County of Morgan in said State, and has approximately five thousand inhabitants. There are few industries in said City that consume large amounts of electricity. A great por- [fol. 262] tion of the electricity there used is for domestic purposes. For a number of years electricity was supplied in said City by a local generating and distributing plant, which was later purchased by plaintiff and is now owned by it.

3. The plaintiff is one of seven affiliated corporations giving electric service to the public in Indiana, and whose combined outstanding capital stocks and securities are owned by a corporation known as Central Indiana Power Company. The other six of said affiliated public utility corporations are Indiana Electric Corporation, Attica Electric Company, Northern Indiana Power Company, Colfax Electric Company, Moran Electric Light and Power Company, and Mulberry Light and Power Company.

The same persons who are officers and directors of plaintiff corporation also occupy the corresponding positions in the other six of the affiliated corporations. The operation of this affiliated group is in charge of a committee consisting of representatives of each of the corporations.

4. At some time prior to 1924, and in keeping with the progress of the times in the electric industry, the financial interests in control of said affiliated group, conceived the plan of constructing a large modern generating plant at Dresser, Indiana for the manufacture of current at a minimum cost and of distributing the current so manufactured [fol. 263] throughout large areas of territory in said State. The said group of corporate structures was formed to facilitate said plan.

The financing of such generating plant required the assemblage of a group of electric properties throughout a large part of said State, in order that there might be guaranteed the disposal of a sufficient amount of electricity each year to justify the construction of a generating plant of that type.

In pursuance to this plan a large generating plant, known as the "Dresser Plant" was constructed on the Wabash River, near the City of Terre Haute in Vigo County of said State by Indiana Electric Corporation, one of said affiliated companies. This plant has a generating capacity of 300,000,000 K W. H. per year, and has been in operation since 1924. Existing electric utility properties were severally acquired by the affiliated corporations in forty counties in said State. Transmission lines and other power system equipment were constructed, interconnecting the acquired electric properties with each other and with the Dresser Plant in order to assure economical operating. A pool of electricity was thus provided and made available for the needs of each of the affiliated corporations. Power loops were constructed throughout the affiliated system of properties so that current could be fed in either direction in event of disablement of a section of transmission line.
[fol. 264] The combined needs of the affiliated companies for current have increased so that for the twelve month period ending May 21, 1930, the combined total of current used was between 475,000,000 and 500,000,000 K. W. H. To meet this increased demand the affiliated system has been

interconnected with several other large generating plants located in Indiana, some of which are controlled by the same financial interests that control said affiliated group. Indiana Electric Corporation has also constructed a 132 K. V. line across said State to the "Columbia Plant" of Columbia Power Company in Ohio near Cincinnati, over which line current manufactured at the Columbia plant is made available to said affiliated system.

This affiliated system of properties was planned, constructed and interconnected and is being operated by said common management as one large system, although each of said affiliated companies owns distinct property, keeps separate accounts and is operated as a distinct public utility.

5. For the furtherance of said plan, plaintiff, Wabash Valley Electric Company, purchased the local electric plant at Martinsville, also the local electric plants at Sullivan and Clinton and at many other widely scattered cities and towns located in central and western Indiana in the counties of Morgan, Putnam, Owen, Sullivan, Greene, Clay, Vigo, Parke, Vermillion, Fountain, Montgomery, Warren and Tippecanoe.

[fol. 265] These local plants were interconnected by high tension transmission lines which in turn were interconnected with similar lines of other affiliated companies in the affiliated system. Substations and transformers were constructed for the purpose of feeding current from plaintiff's power system onto its local distribution properties in the various cities, towns and communities where it furnishes electric service.

After plaintiff acquired such local plants it ceased to operate such local generating plants except occasionally in event of system peak demand. It now owns three small local generating plants located at Martinsville, Sullivan and Clinton. The electricity generated by these local plants is not fed directly onto the local distribution systems in said cities, but it flows into the affiliated system power pool.

The greater part of the Indiana coal fields lie within the counties in which plaintiff furnishes electric service. At the time when plaintiff began its operations in these counties the coal mines were being operated extensively, requiring a great amount of current for such operation. Since then many coal mines have ceased or curtailed operation, and

the use of electricity in this industry has materially decreased. At the time plaintiff began its operations in these counties practically all of the municipalities therein were being supplied with electricity by local plants, there being [fol. 266] no interconnecting transmission lines, and such plants were owned either by the municipalities themselves or by private corporations. This practice has gradually been abandoned, and most of these municipalities are now being supplied electricity by plaintiff. Plaintiff furnishes electric service to approximately 18,000 individual customers in approximately fifty cities, towns and communities and in rural territory, including the City of Martinsville.

Plaintiff is the only utilities furnishing electric service to the inhabitants at Martinsville, and it operates there under an indeterminite permit from the State of Indiana and under the terms and provisions of the Shively-Spencer Utility Commission Act of said State. The electricity that is distributed in Martinsville is fed onto plaintiff's local distribution system from its said power system property. The current so used comes principally from said Dresser plant.

Plaintiff also owns and operates a gas plant at Martinsville, but no question of gas rates is here involved.

6. On the 16th day of March, 1927, and while plaintiff was furnishing electric service at Martinsville in the manner described, seventeen citizens of Martinsville, who were electric patrons of plaintiff, filed with defendant Commission a petition seeking a reduction in electric rates at Martinsville. An amended petition was thereafter filed in which the City of [fol. 267] Martinsville joined as a petitioner. At said time, and at all times prior thereto while plaintiff was furnishing electric service in Martinsville, the plaintiff had on file with said Commission a schedule of rates for electric service at said city approved by said Commission, and which schedule was applicable only at Martinsville.

At all times herein mentioned there was, and now is, in force section fifty-seven of said Act, and which is as follows:

"Upon a complaint made against any public utility by any mercantile, agricultural or manufacturing society or by any body politic or municipal organization or by ten persons, firms, corporations or associations, or ten complainants of all or any of the aforementioned classes, or by

any public utility, that any of the rates, tolls, charges or schedules or any joint rate or rates in which such petitioner is directly interested are in any respect unreasonable or unjustly discriminatory, or that any regulation, measurement, practice or act whatsoever affecting or relating to the service of any public utility, or any service in connection therewith, is in any respect unreasonable, unsafe, insufficient or unjustly discriminatory, or that any service is inadequate or can not be obtained, the commission shall proceed, with or without notice, to make such investigation as it may deem necessary or convenient. But no order affecting said rates, tolls, charges, schedules, regulations, measurements, practice or act, complained of, shall be entered by the commission without a formal public hearing."

Hearings were had on said amended petition at various times by said Commission, and a final order was entered on the 26th day of January, 1929, effective as of February 1st following, fixing the rates and charges for electric service to be collected by plaintiff from its customers in Mar- [fol. 268] tinsville, and which are here complained of.

7. Pending said proceeding before the Commission, plaintiff offered to file and put in effect at Martinsville a trial schedule of optional electric rates. That schedule was approved by the Commission for that purpose on July 9, 1927, and said schedule has been in force at Martinsville since then. Plaintiff's operating revenues from Martinsville electric business have not been reduced under said trial schedule. Its operating revenues from electric rates at Martinsville for the last full calendar year (1926) preceding operation under said trial schedule were $94,238.23. For the first full calendar year (1928) under the trial schedule the corresponding operating revenues were $94,-990.13; and for 1929 they were $99,550.91.

Said trial schedule of rates is, on the whole, higher than the schedule of rates complained of. If the rates complained of had been in effect during the entire year of 1929 they would, by their application to consumer data, have yielded an operating revenue of $84,750.13 for that year. Likewise, they would have yielded an operating revenue of $81,868.72 for the twelve month period ending May 31, 1930.

8. The property of plaintiff that is used and useful for furnishing electric service at Martinsville consists of its local distribution system located in Martinsville, together [fol. 269] with an apportionable part of its said interconnected power system property located outside of the corporate limits of Martinsville. Said power system property is used and useful for furnishing services elsewhere in common with the service furnished by means of it at Martinsville.

Plaintiff's local distribution properties located in cities, towns and communities other than Martinsville are not used or useful for furnishing service in Martinsville.

9. Plaintiff's local electric property in Martinsville had undergone such rehabilitation by the time when preparation was being made for the trial of this suit that the inventory used in appraisals introduced before the Commission were no longer reliable. By joint effort of the engineers representing the adverse parties a new inventory of said local property was made as of May 1, 1930. New appraisals as of that date were made on the basis of the new inventory and introduced in evidence. They were the only appraisals of said local property that were introduced in evidence.

The cost to reproduce new said local electric property in Martinsville, and such cost less accrued depreciation, as of May 1, 1930, is as follows:

	Cost of reproduction	Cost of reproduction depreciated
[fol. 270] Poles, Towers & Fixtures	$20,670	$16,532
Overhead Conductors	12,928	11,636
Services	4,963	3,970
Line Transformers	13,920	11,832
Transformer Installation	1,879	1,597
Consumers Meters	14,977	12,713
Meter Installation	767	652
Office Equipment	2,699	2,159
Shop Equipment	515	412
Transportation Equipment	1,516	970
Laboratory Equipment	564	479
Total land, Plant and Equipment	$75,398	$62,952

to which should be added the following:

	Cost of reproduction	Cost of reproduction depreciated
General contingencies and general overhead	10,964	10,701
Structures and equipment at generating plant at Martinsville devoted only to local use in Martinsville	12,475	10,936
Working cash	.....	3,358
Materials and Supplies	.....	6,500
Going concern value	.....	8,500
Total		$102,947

Said local property was substantially in the same condition and of the same fair value on February 1, 1929, as on May 1, 1930. The fair value of plaintiff's used and useful local electric property in Martinsville was $102,947 on both of said dates, and the fair value of the physical elements of said local property on those respective dates was $84,589.

[fol. 271] 10. The cost to reproduce new plaintiff's said power system property, and such cost less accrued depreciation, as of May 1, 1930, is as follows:

	Cost of reproduction not depreciated	Cost of reproduction depreciated
Generating plants	$516,600	$309,388
High voltage stations	482,467	433,609
High voltage transmissions	986,309	892,877
Carrier current telephone	37,253	31,984
Low voltage sub-stations	14,289	11,423
Low voltage transmission	101,083	66,249
Total land, labor and equipment	$2,138,001	$1,765,530

to which should be added:

	Cost of reproduction not depreciated	Cost of reproduction depreciated
Undistributed construction costs, 15%	320,700	264,800
	$2,458,701	$2,030,330
Capital additions, September 1, 1927 to May 1, 1930	539,065	539,065
to which should be added:		
Working cash		80,000
Fuel Stock		5,000
Material and supplies		162,000
Going concern value		250,000
	$2,997,766	$3,066,395

There were no appraisals of the power system property as of February 1, 1929, placed in evidence. The net additions to said power system property between February 1, 1929, and May 1, 1930, aggregated $444,565.

The fair value of plaintiff's power system property on May 1, 1930, was $3,066,395, and the fair value of the phy- [fol. 272] sical elements thereof on that date was $2,569,- 395. As of February 1, 1929, the fair value of said power system property was $2,621,830, and the fair value of the physical elements thereof on that date was $2,124,830.

11. No cost of financing the reproduction of any of said property would be incurred. Central Indiana Power Company has in the past, and would have on the reproduction dates in question, taken all of the securities issued by plaintiff and furnished it with the necessary capital without any financing cost to plaintiff.

There is no upward trend in prices affecting the value of said properties. There has been a substantial downward trend in copper prices since May 1, 1930, which would tend to reduce the values found herein.

12. The facts concerning the uses to which plaintiff's power system property is devoted under operation by said

common management of the affiliated group, and which are relevant to an apportionment of the fair value of the power system property to Martinsville use, are as follows:

Plaintiff's power system property is located in a group of contiguous counties forming an intervening territory between the territory to the southwest where Indiana Electric Corporation's Dresser plant and radiating transmission lines are located and the territory to the north and east [fol. 273] where the transmission lines and other property of the other affiliated companies are located.

There is annually nearly twice as much current transmitted onto plaintiff's transmission lines from the transmission lines of Indiana Electric Corporation as is required to satisfy the demands of plaintiff's individual customers in its own territory. The excess of this current is transmitted over plaintiff's high tension lines and is delivered principally onto similar lines of Attica Electric Company at Attica and Northern Indiana Power Company at LaFayette for distribution by those companies to their customers in their respective territories. This excess current is so transmitted over plaintiff's lines over a distance of approximately ninety miles. The amount of current manufactured annually at plaintiff's three small generating plants since 1927 has been less than one-fourth of one per cent of the total quantity of current handled on plaintiff's power system property.

In 1929 a total of 84,260,392 K. W. H. was handled on plaintiff's power system property, and only 123,470 K. W. H. were manufactured by plaintiff. Of this total, 2,532,798 K. W. H. were delivered at the Martinsville sub-station onto the local distribution system in Martinsville for local distribution, 6,014,822 K. W. H. were delivered at the Attica sub-station onto the lines of Attica Electric Corporation for distribution to its customers, 30,239,200 K. W. H. were delivered at the LaFayette sub-station onto [fol. 274] the lines of Northern Indiana Power Company for distribution to its customers, 1,354,942 K. W. H. were delivered onto the lines of Indiana Electric Corporation, and the balance was delivered at Plaintiff's other sub-stations for local distribution by it and part was lost in transmission and transformation. In the twelve month period ending May 31, 1930, the total amount of current handled

on plaintiff's lines was 85,295,839 K. W. H., only 77,945 K. W. H. of which were manufactured by plaintiff. Of this total, 2,528,511 K. W. H. was delivered at the Martinsville sub-station, and the remainder was disposed of substantially in the same manner as for the year 1929.

The principal source of this current is the Dresser plant. In 1929 plaintiff received 79,962,702 K. W. H. from Indiana Electric Corporation and for the twelve month period ending May 31, 1930, the amount received from the same source was 84,778,437 Kw. H. A small amount of current is interchanged by plaintiff with Indiana Electric Corporation and with Northern Indiana Power Company. For example, during the twelve month period ending May 31, 1930, 1,585,400 Kw. H. were delivered from the lines of Northern Indiana Power Company onto plaintiff's lines. Similarly, other interchanges of current are made between said affiliated corporations. Monthly settlements are made between the affiliated corporations on net balances of current received at the rate of one cent per Kw. H.

[fol. 275] Plaintiff is charged at the rate of one cent per Kw. H. for all current received by it from Indiana Electric Corporation. Prior to December 1, 1929, plaintiff was credited at the rate of one and a quarter cent- per Kw. H. for the current delivered from its lines at Attica and LaFayette onto the lines of its affiliated companies. Since that date, plaintiff is credited at the same rate it is charged, viz: one cent per Kw. H. for the current actually delivered from its lines onto the lines of its affiliated companies, and the line and transformation losses incident to handling such excess current fall upon plaintiff.

Plaintiff can at all times obtain from Indiana Electric Corporation all current needed by it to supply its customers in its own territory. It is not necessary to the giving of adequate service by plaintiff that it receive any current from Attica Electric Corporation or Northern Indiana Power Company, and it has in the past received but little current from those companies. There is no substantial or necessary use of the power system properties of Attica electric and Northern Indiana Power Companies for furnishing service to plaintiff's customers in reciprocation of the use made of plaintiff's property for furnishing service by those companies to their respective customers. Plain-

tiff's power system property was planned, constructed and is operated by said common management for the use of the customers of said affiliated companies as well as for [fol. 276] the use of plaintiff's customers, and the same is operated as a part of said affiliated system of properties for the benefit of said affiliated companies as well as for the benefit of plaintiff.

The current delivered at the Martinsville sub-station comes either over plaintiff's high tension line running to Martinsville from Indiana Electric Corporation's Lenore sub-station near Indianapolis, or over another of plaintiff's lines running from said Corporation's Cloverdale sub-station to Spencer and Martinsville. Plaintiff's high tension line running from Clinton to Attica and LaFayette, and over which most of said excess current is delivered to affiliated companies, is not necessary for furnishing adequate service at Martinsville.

13. The ratio of sub-station deliveries at Martinsville to total sub-station deliveries made by plaintiff in 1929 is 3.34%. In the same year the ratio of actual sales made to customers in Martinsville to plaintiff's total sales, inclusive of the current delivered at Attica and LaFayette, is 3.027%. The ratio of Martinsville peak demand in 1929 to plaintiff's system peak demand in the same year, but occurring on different days in the year, is 3.01%.

There are included in plaintiff's entire power system property, as the same has hereinbefore been appraised and [fol. 277] valued, isolated transmission lines also branch lines and sub-stations which are not directly used and useful for transmitting current to Martinsville.

An apportionment of power system property to Martinsville used on the basis of 3.30% of its fair value is reasonable and fair.

That percentage of the February 1, 1929, fair value ($2,621,830) is $86,520.39, and of the May 1, 1930 and subsequent fair value ($3,066,395) it is $101,191.00. These apportioned values together with the fair value of the local property ($102,947.00) constitute the total fair values of plaintiff's electric property used and useful for furnishing service at Martinsville at said respective times. Thus determined, the total fair value at February 1, 1929, was $189,467.39, and at May 1, 1930 and since, it is $204,138.00.

The fair value of the physical elements of said property, similarly determined, at February 1, 1929 (apportioned $70,119.39 and local $84,589) is $154,708.39, and at May 1, 1930 and since it is (apportioned $84,790 and local $84,589) $169,379.00.

14. A return at the rate of 7% per annum on said total fair value is a fair return.

A composite rate of 4% per annum on the fair value of the physical elements of said property is sufficient for the depreciation requirements of said property.

[fol. 278] 15. The cost of the current delivered in 1929, and since, at the Martinsville sub-station for local distribution in Martinsville is $.0133 per Kw. H. This cost includes the purchase price of one cent and all other power system expenses, except annual depreciation.

A charge to operating expenses against the revenues from the rates complained of in the amount of $400 per year for ten years, as fixed and allowed by the Commission, is a sufficient allowance to such operating expenses on account of expenses reasonably occasioned by this rate inquiry.

For the twelve month period ending May 31, 1930, the expenses chargeable to such operating expenses and annual depreciation were as follows:

Power—2,528,511 Kw. H. @ $.00133	$33,629.20
Other expenses, including taxes	20,624.18
Rate case expense	400.00
Annual depreciation (4% of $169,379.00)	6,775.16
Total	$61,428.54

There would have been available for return for said twelve month period $20,440.18 out of the total operating revenues of $81,868.72 which the rates complained of would have yielded if in force during said period. This would have made a return for that period of slightly more than 10% on said fair value of $204,138.00.

[fol. 279] For the calendar year of 1929 the total operating expenses, including annual depreciation, were $62,250.54. There would in that year have been available for return $22,499.59 out of the total operating revenue of $84,750.13

which the rates complaint of would have produced if then in force. This would have made a return for 1929 of more than 11% on said fair value of $204,138.00, and would have made an even greater rate of return on the February 1, 1929 fair value of $189,467.39.

16. The rates complained of, if in force at Martinsville, would at all time since February 1, 1929, have produced, and would now produce, sufficient operating revenues to pay all operating expenses, taxes, amortized rate case expenses and annual depreciation chargeable against said revenues, and a fair return of more than 7% per annum on the fair value of plaintiff's electric property to the extent that the same is used or useful for rendering the electric service to which said rates apply.

17. The facts found by the Special Master as they are stated in his report filed herein are true.

(Signed) Will M. Sparks, Judge. Robert C. Baltzell, Judge. Thomas W. Slick, Judge.

February 26, 1932.

[fol. 280] CONCLUSIONS OF LAW

Upon the foregoing facts the Court concludes the law to be as follows:

1. Each of plaintiff's exceptions to the Master's report should be overruled.

2. The evidence and the facts in evidence fail to show that the rates complained of are insufficient to yield a fair return on the fair value of such of plaintiff's property as is used and useful for rendering electric service in the City of Martinsville to the extent that the same is so used and useful.

3. The rates complained of are sufficient to yield a fair return on the fair value of such of plaintiff's property as is used and useful for rendering electric service in the city of Martinsville to the extent that the same is so used and useful.

4. The law in this case is in all things with the defendants.

5. Neither the order of the Public Service Commission of Indiana nor the rates complained of violate any rights of [fol. 281] the plaintiff under the constitution or laws of the United States.

6. Plaintiff's bill of complaint is without equity and should be dismissed.

7. The temporary injunction issued herein enjoining the rates complained of pending final hearing should be dissolved and plaintiff should make refunds in accordance with the terms of said temporary injunction of any sums it may have collected from its electric customers in the City of Martinsville in excess of the rates complained of.

8. That defendants are entitled to recover of and from plaintiff their respective costs made, laid out and expended herein.

Dated at Indianapolis, Indiana, on the 26" day of February, 1932.

Will M. Sparks, Judge. Robert C. Baltzell, Judge. Thomas W. Slick, Judge.

[fol. 282] In United States District Court

Decree—February 26, 1932

The plaintiff now separately and severally excepts to each finding of fact and each conclusion of law.

This cause coming on now to be finally heard by the Court, and the parties appearing by their respective solicitors, and the Court having heard the evidence and plaintiff's exceptions to the report of the Special Master and the argument of Counsel, and being sufficiently advised in the premises, each of said exceptions to said report is now overruled by the Court.

It is now ordered, adjudged and decreed by the Court that the equity of this cause is with the defendants.

It is thereupon ordered, adjudged and decreed by the Court that the temporary injunction issued herein be, and the same is hereby dissolved. It is further ordered, adjudged and decreed that, in accordance with the terms of said tempo-

rary injunction the plaintiff shall within 90 days after the date of this decree, or in case of appeal from the date of affirmance thereof, refund to its customers, or credit to their respective accounts, all sums of money which it may have collected from them in excess of those which it would have collected under the schedule of rates complained of in its bill of complaint.

It is further ordered, adjudged and decreed that the plaintiff pay to the defendants their costs and charges laid out and expended herein, taxed at $—.

And it is further ordered, adjudged and decreed by the Court that the bill of complaint herein be, and the same is [fols. 283 & 284] hereby, dismissed for want of equity, and that jurisdiction of this cause be, and hereby is, reserved in this Court for the purpose of enforcing this decree.

It is further ordered, adjudged and decreed that if an appeal be allowed to the plaintiff from this decree within three months from the date of said decree, and the plaintiff shall execute and file a bond in the sum of $60,000.00, conditioned that the plaintiff will prosecute its appeal with effect and shall pay all damages and costs that may be awarded against it if it fails, and in the event the electric rates for the city of Martinsville fixed by the order entered by the Public Service Commission of Indiana on January 26, 1929, become effective upon final hearing and determination the plaintiff shall refund to its customers respectively or credit to their respective accounts any sums collected by the plaintiff in excess of the rates and charges fixed by said order, the temporary interlocutory injunction heretofore granted by the court shall be and hereby is restored and continued in force in order to maintain and preserve the status quo pending the appeal to the United States Supreme Court and until further order of this court. During the three months period allowed plaintiff for taking its appeal, it may bill its customers under the rates heretofore applied in lieu of the rates complained of.

[fols. 285 & 286] IN UNITED STATES DISTRICT COURT

[Title omitted]

PETITION FOR APPEAL—Filed May 10, 1932

To the Honorable Robert C. Baltzell, Judge of said District Court:

Your petitioner, Wabash Valley Electric Company, who is the plaintiff in the above entitled cause, prays that it may be permitted to take an appeal from the decree entered on the 26th day of February, 1932, at the November, 1931, term of said court, on a hearing and determination by the Honorable William M. Sparks, Circuit Judge; the Honorable Robert C. Baltzell, District Judge, and the Honorable Thomas W. Slick, District Judge, in accordance with the provisions of section 266 of the Judicial Code, to the Supreme Court of the United States for the reasons specified in the assignment of errors which is filed herewith.

And your petitioner desires that said appeal shall operate as a supersedeas, and therefore prays that an order be made fixing the amount of security which said petitioner shall give and furnish upon such appeal, and that upon giving such security all further proceedings in this court be suspended and stayed until the determination of said appeal by the Supreme Court of the United States.

Dated this 10 day of May, 1932.

John C. Sawyer, Cooke, Sullivan & Ricks, Howard S. Young, Fesler, Elam & Young, Attorneys for Petitioner.

[fol. 287] IN UNITED STATES DISTRICT COURT

[Title omitted]

ASSIGNMENTS OF ERROR—Filed May 10, 1932

Comes now the said Wabash Valley Electric Company, plaintiff, and files the following assignment of errors upon which it will rely in the prosecution of the appeal in this case, and says that in the record, proceedings and decree entered herein, manifest error has intervened to the prejudice of the plaintiff in this, to wit:

1. The court erred in holding that, for the purpose of determining the validity of the rates for electrical service prescribed in the order of the Public Service Commission of Indiana entered January 26, 1929, the plaintiff's Martinsville property should be considered as a segregated unit and separated from the remainder of the operating unit of which it is an integral physical and economic part, in this, to wit:

(a) Plaintiff's electrical property is a single physical and economic system, interconnected throughout, which supplies electrical energy to the public residing in towns, cities and communities located on that system, and every portion of that property of whatever description or wherever located is used and useful for furnishing service to that public; and the court erred in finding that the only property used and useful for furnishing electrical service in Martinsville consists of the local distribution system located in Mar- [fol. 288] tinsville, together with an apportionable part of the interconnected power system property (i. e. electrical transmission lines and facilities) located outside the corporate limits of Martinsville, and in finding that plaintiff's local distribution properties located in cities, towns and communities other than Martinsville are not used and useful for furnishing service in Martinsville and should be excluded from the rate base in this case.

(b) The court erred in overruling exception No. 18 taken by the plaintiff to that part of the report of the special master finding that the whole of plaintiff's used and useful electrical property should not be considered the rate base in this case.

(c) The validity of plaintiff's rates in any part of its interconnected electrical system should be tested by the effect of such rates upon plaintiff's entire electrical net revenue applied to the value of the used and useful property in its entire interconnected electrical system, and the court erred in overruling exception No. 17 taken by the plaintiff to that part of the report of the special master holding that the rates should not be so tested.

(d) The court erred in overruling plaintiff's exception No. 16 to that part of the report of the special master find-

ing that plaintiff's customers should not be required to pay rates sufficient to pay all operating expenses, depreciation and return on plaintiff's power system property (i. e. electrical transmission lines and facilities) as the same exists and is being used.

(e) The statutes of Indiana do not provide that a municipality shall be treated as a segregated unit for the purpose of determining the validity of the rates for electrical service supplied to the public and the court erred in finding that the statutes of Indiana so provide and in overruling exception No. 18 taken by the plaintiff to that part of the report of the special master so finding.

[fol. 289] (f) If the statutes of Indiana are to be construed as so providing, the court erred in applying them to this case, because such statutes are unconstitutional and void as applied to this case, in that they would require a separation of plaintiff's Martinsville property from the remainder of the operating unit of which it is in fact an integral physical and economic part and thereby exclude from the rate base applicable to Martinsville, property actually used and useful in supplying electrical energy to plaintiff's Martinsville customers.

2. If segregating plaintiff's Martinsville property from the remainder of plaintiff's electrical system was not error, nevertheless the court erred because it did not make a proper allocation of the property outside Martinsville, and did not properly determine the cost of electrical energy delivered at the Martinsville substation for distribution to Martinsville customers, in the following particulars, to wit:

(a) In allocating the portion of the power system property used and useful in supplying electrical energy to the public at Martinsville, by an approximation based on: the ratio of kilowatt hours of electrical energy sold by the plaintiff to Martinsville customers for the year 1929, to the total kilowatt hours of electrical energy sold by the plaintiff during the year 1929, including deliveries to other utilities; the ratio of Martinsville substation output for 1929, to the total output of all substations of plaintiff for the year 1929, and the ratio of Martinsville peak demand in 1929 to plaintiff's system peak demand in the same year, but occurring on different days of the year; and on that

basis finding that 3.30 per cent of the fair value of the power system property (i. e. $101,191, which is 3.30 per cent of $3,066,395) was a fair and proper portion to be allocated to Martinsville use, and in overruling the plaintiff's exception No. 13 to that part of the report of the [fol. 290] special master so holding, when in fact, if any allocation should have been made, the deliveries to other utilities aggregating approximately 50 per cent of said total deliveries should have been excluded and not less than 6.63 per cent of the power system property (i. e. $241,176, which is 6.63 per cent of $3,637,650) should have been allocated to Martinsville as used and useful in supplying electrical energy to the public in Martinsville.

(b) In finding that the cost of electrical energy delivered at the substation at the city of Martinsville for local distribution in Martinsville, except annual depreciation, was $.0133 per kilowatt hour; and in finding that a fair and adequate "gateway" rate for Martinsville (i. e. cost of electrical energy delivered at the substation at Martinsville for distribution in Martinsville) is $.018 per kilowatt hour, and in overruling plaintiff's exception No. 12 to that part of the report of the special master so finding, whereas said cost so determined was only an average figure and not the actual cost of energy delivered at said substation, which actual cost was in fact not less than $.024996 per kilowatt hour.

(c) In overruling plaintiff's exception No. 14 to that part of the report of the special master finding that deliveries by plaintiff of electrical energy to affiliated utility companies should not be eliminated in determining the proportion of the power system property value, cost of electrical energy and power system expense to be allocated to Martinsville.

(d) Even if the court's method of allocation of power system property and expense was otherwise correct, the court erred in failing to segregate and allocate on the basis of actual use the specific physical portions of the power system property actually used in making deliveries to other utilities and the expense actually incurred in making such deliveries, before determining the gateway cost of energy at the Martinsville substation and allocating power

system property to Martinsville; which segregation and [fol. 291] allocation show a cost of energy at the Martinsville substation of not less than $.022897 per kilowatt hour compared with $.018 found by the court.

3. The court erred in finding the value of plaintiff's used and useful property in the following particulars:

(a) In overruling exception No. 5 taken by the plaintiff to that part of the report of the special master finding that the fair value of plaintiff's entire electric property used and useful in serving electrical energy to the public was $4,594,887, when it was in fact of the fair value of not less than $5,556,091.

(b) In finding that the fair value of the physical elements of plaintiff's power system property (i. e. depreciable property) was $2,569,395; and that the fair value of the power system property as a whole actually used and useful in the public service was $3,066,395, and in overruling plaintiff's exceptions Nos. 3 and 4 to that part of the report of the special master finding the value of said property; when the fair value of said depreciable property was not less than $2,830,049, and said power system property as a whole was in fact of the fair value of not less than $3,637,650.

(c) In finding that the fair value of the physical elements of plaintiff's local property (i. e. depreciable property) in Martinsville used and useful in the public service, was $84,589; and that the fair value of plaintiff's local property as a whole in the city of Martinsville, actually used and useful in the public service was $102,947, and in overruling plaintiff's exceptions Nos. 1 and 2 to that part of the report of the special master finding the value of said property; when the fair value of said depreciable property was not less than $100,659, and the said local property as a whole was in fact of the fair value of not less than $135,402.

(d) In finding that the fair value of the physical elements of plaintiff's property (i. e. depreciable property) [fol. 292] used and useful in the public service in the city of Martinsville was $169,379; and that the fair value of plaintiff's electrical property as a whole used and useful

in the public service in supplying the public of the city of Martinsville with electrical energy was $204,138, and in overruling plaintiff's exceptions Nos. 13 and 15 to that part of the report of the special master so finding, when in fact if any allocation should have been made the fair value of said depreciable property was not less than $288,768, and said used and useful electrical property as a whole was in fact of the fair value of not less than $376,502.

(e) In overruling plaintiff's exception No. 10 to that part of the report of the special master finding that the value of plaintiff's three generating plants was $309,388, when they were in fact of the fair value of not less than $424,282.

(f) In determining the fair value of the used and useful property of plaintiff devoted to the public service on the basis of the testimony of the witness Abbett as to reproduction cost thereof, less observed depreciation, without giving proper consideration and weight to the evidence of the plaintiff's witnesses as to reproduction cost and observed depreciation, or to any of the evidence as to original cost of construction, the present as compared with the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stocks, the probable earning capacity of the property as a single, interconnected operating unit, and the sums required to meet operating expenses.

(g) In overruling plaintiff's exception No. 8 to that part of the report of the special master finding that the unit prices used in making up the appraisal of the Stone and Webster Engineering Corporation are too high and that the amounts added thereto for general construction costs are unwarranted, and that its allowance for organization, working capital, cost of financing and going value is [fol. 293] exorbitant and unreasonable in each case; and in overruling plaintiff's exception No. 11 to that part of the report of the special master finding the unit prices adopted and used by the witness Abbett and his deduction for observed depreciation are fair and reasonable, when in fact his unit prices are too low and his deduction for observed depreciation is excessive.

(h) In finding that no cost of financing would be incurred in reproducing any of said property and in refusing to allow anything therefor; and in overruling plaintiff's exception No. 7 to that part of the report of the special master which finds that in fixing values of plaintiff's property for the purpose of this case, nothing should be included for cost of financing.

4. The court erred in finding that only $4,000 should be charged to operating expenses for the expenses of this rate case and in overruling plaintiff's exceptions Nos. 19 and 20 to that part of the report of the special master so finding, when the actual expenses were shown to be in excess of $60,000.

5. The court erred in finding that a return of 7 per cent upon the fair value of the property used and useful in the public service is a reasonable return and in overruling plaintiff's exception No. 21 to that part of the report of the special master so finding, when in fact a return of not less than 8 per cent should have been allowed in order to avoid confiscation of plaintiff's property.

6. The court erred in overruling plaintiff's exceptions Nos. 22, 23, 24 and 25 to that part of the report of the special master finding the net return which the rates complained of would have produced and that said rates would have yielded a fair rate of return; when in fact the net return would not have exceeded $6,121.10 and the rate of return would have been less than a fair and reasonable rate of return and would not have exceeded five per cent.

[fol. 294] 7. The court erred in overruling plaintiff's exceptions Nos. 27, 28, 29 and 30 to the conclusions of the master, that the rates are not confiscatory and do not take plaintiff's property without due process of law; that the enforcement thereof should not be enjoined, that the temporary injunction should be dissolved, and that the bill should be dismissed for want of equity; in entering its final decree dismissing plaintiff's bill for want of equity; and in failing and refusing to enjoin the enforcement of the order of the Public Service Commission of the State of Indiana entered January 26, 1929, on the ground that the electrical rates prescribed in said order are confiscatory of plaintiff's property, deprive the plaintiff of its property without due

process of law and deny it the equal protection of the law, contrary to the Fourteenth Amendment to the Constitution of the United States.

Wherefore plaintiff prays that the decree may be reversed and for such other and further relief as to the court may seem just and proper.

Dated this 10 day of May, 1932.

John C. Sawyer, Cooke Sullivan & Ricks, Howard S. Young, Fesler, Elam & Young, Attys. for Ptff.

[fols. 295-300] In United States District Court

Order Allowing Appeal—May 10, 1932

The petition of Wabash Valley Electric Company, plaintiff in the above entitled cause, for an appeal from the final decree herein is hereby granted and appeal is allowed to the Supreme Court of the United States, and upon the plaintiff filing a bond in the sum of Three Thousand ($3,000.00) Dollars with sufficient sureties and conditioned as required by law, the same shall operate as a supersedeas of the final decree made and entered in the above cause and shall suspend and stay all further proceedings in this cause until the termination of said appeal by the Supreme Court of the United States.

Plaintiff now files its appeal bond herein in the penal sum of Three Thousand ($3,000.00) Dollars, and the same is now in all respects approved by the court, which said bond is as follows:

* * * * * * *

[fol. 301] In United States District Court

Minute Entry—May 10, 1932

Citation is now ordered, signed and issued by the court.

The plaintiff now also files condensed statement of the evidence, which is signed and approved by the court, and is as follows:

[fols. 302 & 303] [File endorsements omitted]

[fol. 304] IN UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF INDIANA, INDIANAPOLIS DIVISION

In Equity. No. 1178

WABASH VALLEY ELECTRIC COMPANY, Plaintiff-Appellant,

vs.

FRANK T. SINGLETON, et al., Defendants-Appellees

Condensed Statement of Evidence as Required by Equity Rule 75—Filed May 10, 1932

CAPTION

Be it remembered that the above entitled cause in chancery was heard before a special master and that the evidence herein was taken and reported by said special master and filed herein July 2, 1931, and is the only evidence heard and considered by said special master or by the court, and the following is a condensed statement of the material parts thereof, to wit:

September 2, 1930.

L. B. ANDRUS, witness for plaintiff, testified:

Witness has been president of Wabash Valley Electric Company since 1924 and resides in Indianapolis, Indiana. Prior to 1924 witness had general supervision of utility operations for American Public Utilities Company and the Wabash Valley Company and also general supervision of utility construction in Indiana from 1917 to date. From 1903 to 1916 witness had general supervision of construction and operation of electric utilities with the Indiana and Michigan Electric Company at South Bend.

In 1921 and 1922 a survey was made of the territory near Indianapolis and it was found that sufficient water could not be obtained to operate an electric generating station. [fol. 305] Within certain limits, up to 600 or 700 tons of water per ton of coal burned, the increased volume of water lessens the fuel consumption. The condensation of the water creates a vacuum which creates a pull in one direc-

tion on the machine and materially aids the push of the steam on the opposite. It was found that the nearest adequate supply of water was either the Ohio River or the Wabash River. Options were secured on properties some of which are now a part of the Wabash Valley Electric Company. Other properties were secured which now comprise part of the Northern Indiana Power. The purpose was to get together a group of properties with a sufficient load and income to make commercially expedient the location of a power plant on the Wabash Siver. The rapid increase in industrial loads has made necessary large centralized power plants rather than small unassociated and comparatively inefficient local plants. The territory served by the Wabash Valley Electric Company contains a number of small towns and a great many coal mines and gravel pits which carry a large potential electrical load. At present over 50% of the kilowatt hours sold to individual meter customers by the Wabash Valley is furnished for industrial uses outside of municipal boundaries. The general practice of electrical engineers has been to interconnect electrical generating plants and electric distribution companies in such a way that each system will act as a reserve for the others in case of emergency. This interconnection insures better service to the consumer at a lower cost because each single generating plant is no longer required to carry reserve capacity in the way of extra generators, and in the event that one generating plant breaks down one of the others can temporarily assume the load until repairs can be made. During the current summer different communities in Indiana dependent upon local generation, had difficulty in maintaining efficiency owing to the diminution in the flow of small streams and the relatively high temperature of the water.

Plaintiff's Exhibit 1 indicates the electrical transmission system. No. 10 on Exhibit 1 indicates the Dresser plant [fol. 306] placed in operation in 1924. It is connected at Clinton and has a line connecting at Cloverdale and at Sullivan. It has a transmission line to a point directly south of Indianapolis at Lenore Substation and then feeds back west into the Wabash Valley system at Bainbridge. At Lafayette the line of the Northern Indiana Power Company is connected through Kokomo to the large steam plant

at South Bend, Indiana. The Columbia plant on the Ohio River is run into the Lenore Substation and is there connected to the lines going to Bainbridge, Martinsville and Spencer.

The plant at South Bend is known as the Twin Branch plant and became necessary when the load grew greater in 1929. It is contemplated in 1930 that the line from Michigan City will come by way of Plymouth to Lafayette. The system is already connected to the state line plant in Indiana just east of the Illinois state line which is the largest generator which has been built anywhere and is capable of 200,000 kilowatts production. The bulk of the electricity available for the Wabash Valley system is generated either at the Columbia plant on the Ohio River, the Dresser plant on the Wabash River, or the Twin Branch plant on the St. Joe River. Additional and supplementary generation is available at Kokomo where Northern Indiana Power Company has a plant under steam at all times, and at plants in Clinton, Sullivan and Martinsville, which are essentially local generating plants. Plaintiff's three generating plants at Martinsville, Sullivan and Clinton are steamed up and put in service at times of maximum load on the system, for system convenience and necessity, not for the cities in which they are located. They are used only at such times when additional current is needed for a short period such as occurs in the fall months when the lighting load comes on before the power load is off. These small local plants, although relatively inefficient, may be economically utilized when operated only for a short period during each year. The investment is already there and it is much cheaper to use them than to build another transmission line back to [fol. 307] one of the big plants which would create a burden throughout twelve months of the year for the reason that the contracts provide that if a call is made on the central generating plant for additional capacity other than that provided for in the contract then a fixed charge based on that additional capacity must be paid for the remainder of the life of the contract. The only exception to this rule is the Columbia plant at Cincinnati which has some excess capacity and at present for one year only has contracted so that any excess current required will operate as a penalty only for the month in which it is drawn. The de-

mand charge is a fixed charge which must be paid whether or not any or all of the current is utilized. Sufficient equipment must be provided to take care of the maximum amount of current which may be required at any one moment during the whole year even if such a load is reached for a day only.

In addition to being president of Wabash Valley Electric Company, witness is president of Indiana Electric Corporation, Attica Electric Company, Northern Indiana Power Company, also of six or seven smaller interconnected companies, and vice president of two or three, in this territory. He is responsible for the operation and power supply of each and all of the interconnected companies in the loop shown on Exhibit 1.

At present the Wabash Valley is delivering electrical energy to the Northern Indiana Power Company at Lafayette. Also occasionally the Wabash Valley Electric Company obtains electricity from the Northern Indiana Power Company and the Indiana Hydro Electric Company at Lafayette. This system of interchange is paid for by each company on the same basis, the settlement of balances being largely made through book entries. About two and one-half million kilowatt hours a month are purchased regularly from the Twin Branch plant at South Bend, some of which is transmitted to the Wabash Valley at Lafayette and sent south. When the Michigan City plant is put in operation about the first of the year the current flow will be reversed and will feed south, thus releasing the current [fol. 308] from the Dresser plant near Terre Haute which will be transmitted elsewhere. There have been interruptions which have necessitated, since 1929, some twenty-five instances in which current has been transmitted south from Clinton to Lafayette and but for the interconnection outstages would have occurred. The 66,000 volt line north from Clinton to Lafayette serves substations at Cayuga, Covington, Veedersburg and Newton, which serve customers of the Wabash Valley Electric Company proper. There is also a substation at Attica where current is furnished for customers of the Attica Electric. Electricity delivered to the Northern Indiana Power Company at Lafayette is delivered at 66,000 volts, the same voltage as the electricity received from the Indiana Electric Corporation at Clinton. For the same load the loss is less at 66,000 volts than at a

lower voltage. In order to deliver current to the so-called town gateways it is necessary to transform a high voltage current to the voltage which is used in the community. Plaintiff does not supply electricity to the city of Lafayette. The transformation and line loss averages 10% and 12% while the strictly line loss averages about 3%. The current delivered to the Northern Indiana Power Company is delivered at 66,000 volts without any transformation, hence all transformation losses are assumed by Northern Indiana Power Company. Even without the sale of electricity north to the Northern Indiana Power Company, or any other person or corporation, in witness' opinion, the line from Clinton to Lafayette would be required for the Wabash Valley because of the advisability of having each line so tied in that two sources of current are possible. With power coming into a network from common sources the costs must be taken collectively and rates must be established which will permit essentially the same charge to the Northern Indiana Power Company customers and those of the Attica Company as is made to the customers of the Wabash Valley Electric Company. If a prohibitive rate should be charged the Northern Indiana Power Company they could purchase from some other source, and because of competition the current can be obtained elsewhere, at the same price that is now in effect. [fol. 309] When the power was brought into Kokomo from the north the rate was reduced in the northern section to one cent to correspond to the one cent rate in the southern section. Originally the rate in the north was one and a quarter cents per kilowatt hour. The one cent rate is a fair and reasonable price considering the fixed charges. Interest, depreciation and taxes amount to a fixed sum every year whether the plant is run or not. If a plant can secure a load which will keep it in operation 25% of the time it is said to have a load factor of 25%. If the plant can secure additional daylight consumers, such as street railway companies, when it would otherwise be idle, and can operate 50% of the time, its fixed charges will be no greater but it will have twice the number of kilowatt hours over which to pro rate the fixed charges. Therefore, the cost per kilowatt hour will be about half of what it would be at a 25% load factor. As a result current can be fur-

nished to the average industrial manufacturing concern which has a load factor between 25% and 35% at a lower price than if the concern had only a 10% load factor. The town of Martinsville carries primarily a lighting load which is very low as compared with an industrial load. It is the industrial power load which has increased the load factor and made it possible to reduce rates. The cost per kilowatt hour outside of the municipalities is less than the cost per kilowatt hour delivered to the city gateway because the load factor outside is much better than the load factor inside the cities. A city or town in the Wabash Valley system benefits from both the internal and external economies resulting from the power network because of the increased load factor resulting from industrial and street railway loads which provide daylight and Sunday consumption of current. In fixing rates, all of the costs have been considered collectively and since distribution to the different communities must be done in some way to avoid discrimination it has been attempted to make similar rates for similar classes of service in cities of the same size. The utilities' position under this system, with power from common sources coming into interconnected transmission lines, is that costs and investments and rates must be considered [fol. 310] collectively, and that ratemaking is the function of the management. Where it takes the whole group to furnish the service the rates should not be very diverse for the same classes of service in cities of the same size.

The 33 K. V. line from Lenore substation to Martinsville shown in green on Exhibit 1 was taken down and plaintiff has built a 66,000 volt line between these points. The transmission loss on this line should not be as great as on the Clinton-Lafayette line because it is shorter. The current that comes to Martinsville over the line from Lenore substation is fed into that substation over lines of the affiliated system carrying current from the Dresser, Columbia, Kokomo, and Twin Branch plants and from Fort Wayne. Martinsville can be served, in case of breakdown, over a 66,000 volt line of Interstate Public Service Company coming up from Bloomington and connected with that Company's Edwardsport plant. That Company's lines and plants are operated in common with the operation of the lines and plants of the affiliated companies.

If one city in the Wabash Valley system were picked out it would be impossible to consider rates in respect to that one city without also considering all of the communities served by the Wabash Valley. In addition to the two 66,000 volt lines one from the north and one from the south which come to Martinsville, there is a line coming from Greencastle south to Spencer and across through Gosport and Paragon to Martinsville which is a 33,000 volt line. There is another line connecting Martinsville at Worthington from the Edwardsport plant, which is a 33,000 volt line. However, satisfactory service has been rendered only since the 66,000 volt line has been utilized, there being only four interruptions in the past eight months as compared with twenty-five in the previous period of eight months. The power system property of plaintiff was not conceived for only its purposes. All of the units of these affiliated companies were conceived as a whole. Plaintiff's transmission lines were conceived and erected as a comprehensive part of the whole power [fol. 311] distribution systems of the affiliated companies. The power lines of the Wabash Valley system are designed to coincide with a system comprised of all the affiliated companies plus the Wabash Valley. The line from Clinton to Lafayette would probably not require so large a copper conductor if it were serving only the communities along the line without any industrial consumers, but the same size transformer stations and poles and the same amount of attendance and patrolling and maintenance would be required. As to the question of voltage a rule of thumb is about a thousand volts to the mile. It is about 90 miles from Clinton to Lafayette and a 33,000 volt line would not be put up for a 90 mile transmission.

Current is metered as it leaves one company's property and goes to another. Those readings are washed out and the differential is settled for at one cent. It is a bookkeeping procedure. The one cent price is fixed by the witness. There is no written contract in effect between the companies on interchange of current. The interchange goes right on. If the companies make a pull down on plaintiff, the current flows in. There is no order directing the flow of current, and no contract fixing the price of interchanged current. In 1930 there were about 35,000,000 kilowatt hours delivered over plaintiff's Clinton-Lafayette line to Attica Electric Company and Northern Indiana Power Company. This

current normally gets on this line at Clinton from the Dresser plant, but if the plant is down it could feed back from Lenore. Roughly speaking, about 35,000,000 kilowatt hours were delivered to the Attica Company and the Northern Indiana Power Company during 1930, which is paid for at the rate of one cent irrespective of its source. Plaintiff generates no power except a very small amount at its three small plants during the peak, and buys practically all of its current. Its lines are simply used as a conduit. The compensation of the Wabash Valley is only indirect in that the other companies transmitting current to the Wabash Valley do not make any profit off of the Wabash Valley.

[fol. 312] If Northern Indiana Power Company and the Dresser plant want to exchange electricity, they do it over plaintiff's transmission lines, and plaintiff gets nothing from either of the companies for the use of its transmission lines, and neither do the other companies get anything from plaintiff. The State Line Company at Hammond is an Insull Company, so is Interstate Public Service Company.

In the event that one of the power sources should break down it would be necessary to transmit current from one of the other sources and the line from Lafayette to Clinton might be used in such a situation.

The property of plaintiff shown on Exhibit 1 consists of local plants with some lines purchased by plaintiff, together with lines erected by it since. The question of what should be charged by the Wabash Valley Electric Company to other companies for electricity delivered to them over its lines has never been taken up with the Public Service Commission of Indiana for the purpose of having the rate fixed. If a whole new system were to be planned, with the Wabash Valley Electric Company to serve the territory which it is now serving, the small local plants at Martinsville, Sullivan and Clinton would not be built at these specific locations, probably one centrally located as an auxiliary plant would be more efficient. The local generating plant at Martinsville once served that city and some adjacent territory, and Martinsville then had no other source of electricity.

About 85,000,000 kilowatt hours are handled on plaintiff's system in a year, of which about 35,000,000 go to Attica Electric Company and Northern Indiana Power Company, leaving 50,000,000 to plaintiff. The Wabash Valley purchasing current at one cent per kilowatt hour and furnishing current

to some other concern at one cent per kilowatt hour assumes a line loss of 3%, but the transmission of this current over the line does not increase the cost of keeping up the line over what it would cost the Wabash Valley if it were using the line only for its own customers. The Wabash Valley customers [fol. 313] are assured better service in that current may be gotten from two directions.

Plaintiff has been paying one cent per kilowatt hour for the current purchased by it since 1924. Until December 1, 1929 plaintiff received one and a quarter cents for the current delivered to affiliated companies at the north end of its lines, but since December 1, 1929 it gets exactly the same rate as it pays.

The current delivered to the city of Martinsville is metered on the low side of the transformer at the substation which creates a transformation loss for the Wabash Valley Electric Company which does not exist in the case of deliveries at Lafayette from the Northern Indiana Power. The Interstate Public Service Company common stock is not held by the same person who holds the Wabash Valley common stock, but both are subject to the same general supervision.

Plaintiff's line running south to Spencer is hooked up with Indiana Electric Corporation's lines at Cloverdale, Bainbridge and Clinton. The small local plant at Sullivan will be discontinued but the plants at Clinton and Martinsville will be kept in operation and used as needed. With the character of lines that are actually constructed, it is economically impossible to transmit electricity from the State Line plant in Lake county to the Interstate Service Company, in the southern part of Indiana. As a result of its interconnected lines which enable it to serve a large territory, the Wabash Valley gets the benefit of a load factor which lowers the cost of production of electric energy and permits a lower rate. This benefit accrues by virtue of the one cent per kilowatt hour exchange arrangement with the various generating plants.

Plaintiff and Indiana Electric Corporation are Insull companies. Witness refers to companies whose lines comprise the system shown on Exhibit 1 and whose names appear at the bottom thereof as affiliated companies. Other companies mentioned are not affiliated in the same sense of com-

mon stock ownership. The foreign lines referred to on Exhibit 1 are owned by other companies whose common stock ownership is not in the same place.

[fol. 314] Utility Service Company, no longer in existence, was a clearing house operated at no profit, which paid the salaries of the general officers of the affiliated companies and prorated them back to the various companies. This is now done through Indiana Electric Corporation, which owns the Dresser plant. Witness, as president of the affiliated companies, exercised general supervision of their operation. He gives final approval for the different companies as to where they build lines. The question of where plaintiff buys its electricity is determined by the ownership of the lines. There is a committee, including the engineer and operating forces of the affiliated group, that is in charge of the operation of the whole group. This committee makes recommendations on such questions as where plaintiff should purchase its current, and the officers pass on them finally. The Dresser plant is in position to furnish as much electricity as it has in the past. Plaintiff pays Indiana Electric Corporation in money for the current received from the Dresser plant. Constructively, from an operating standpoint, the whole is one system, but because of the existence of different companies it is necessary to have a figure for bookkeeping purposes. This same plan has been followed generally through Indiana and elsewhere east of the Mississippi River. When the Wabash Valley Electric was selling current to the Attica Company and the Northern Indiana Power Company at one and a fourth cents per kilowatt hour it was making a book profit of some $87,000 a year, assuming that 35,000,000 kilowatts were sold in this manner. Plaintiff is getting its current no cheaper since the price it receives for current it delivers to other companies was reduced to one cent. Witness thinks a benefit to plaintiff could be computed to offset the reduction of the price of current delivered by it from one and a quarter cents to one cent if a specific set of conditions were named, but that he cannot name them.

There was a period during which the Martinsville plant was not used because the Dresser plant had been overbuilt owing to the fact that it was cheaper to put in three 20,000 [fol. 315] Kw. H. turbines while all the men and equipment

were there than to put in one turbine which might have been sufficient for the time being to supply the load. However, the load has now increased and it has become necessary to go out and buy electricity under outside contracts, thus it is essential to use the Martinsville plant to furnish auxiliary power during the period of greatest peak load. The industrial demand has dropped off somewhat since the last of 1929.

The Columbia Power plant is not controlled in any respect by the affiliated companies. Neither is there any relation between the Wabash Valley Electric Company and the Indiana & Michigan Electric Company which connects at Kokomo with the Twin Branch plant.

At the time the price was changed from one and a quarter cents per kilowatt hour to one cent on the sales to the Northern Indiana Power Company in December, 1929, it was contemplated that sales to them would be decreased from that time on and purchases of the Wabash Valley Electric Company from Northern Indiana Power Company increased. It is further contemplated that the Wabash Valley Electric Company will be obtaining current from the north to a certain extent in the following year and to a greater extent from that time on.

Witness in his previous testimony testified that "we" had contract arrangements with companies other than affiliated companies for the purpose of purchasing electrical energy; in particular, contracts with the Indiana and Michigan Electric Company which owns the Twin Branch plant and the company that owns the Columbia plant. Witness, by the use of the word "we" referred to the affiliated system and not to the Wabash Valley Electric Company alone. The Indiana and Michigan Electric Company contract is with the Northern Indiana Power Company and the Columbia contract with the Indiana Electric Company.

Witness' answer as to the three small generating plants owned by the Wabash Valley Electric Company referred to the necessity of these plants as governed by the affiliated [fol. 316] system convenience and necessity, as well as to the Wabash Valley system. The current that the affiliated system buys from the Columbia plant eventually gets into the network through physical property owned by the Indiana Electric Corporation and the energy which the Wabash

Valley Electric Company gets from the Indiana Electric Company is metered. Thus the quantity of current which the Wabash Valley Electric Company purchases from the Indiana Electric Company is known but the source cannot be determined. The Indiana Electric Company, at the Ohio-Indiana state line, pays, at that point, 7.8 mills per kilowatt hour on the high step and a lower amount after a certain amount is used. This figure is contained in the contract. In relation to the contract between the Northern Indiana Power Company and the Indiana Michigan Electric Company a similar arrangement is provided as to the price at the point of delivery. The top step rate is 9 mills and the second step is about the same as the reduction at the Columbia plant for the Indiana Electric Company. The contemplated arrangement, which is now in the making, for current from the north will deliver power directly to the Wabash Valley Electric Company at a rate of one cent per kilowatt hour.

Under the arrangements as they now exist the Wabash Valley Electric Company, as an individual entity, is in a position to secure all of the energy it needs, independent of the three local generating plants, at one cent per kilowatt hour, which is less than the cost of the energy that would be manufactured by the three local generating plants owned by the Wabash Valley Electric Company based on operation for the same length of time and for the same quantity of energy. Thus, assuming that in the last year the three local plants owned by the Wabash Valley Electric Company generated about 123,000 kilowatt hours, a similar amount of current purchased at one cent per kilowatt hour from other sources would have been much cheaper than the operation of the local plants. The three local generating plants, however, serve as standby plants for the affiliated system because standby capacity must be provided [fol. 317] either by the sources from which the Wabash Valley Electric Company purchases its electricity or by the Wabash Valley system itself. These local generating plants produce less than 1% of the electrical energy consumed in a year's time by the Wabash Valley Electric Company.

For the year ending December 31, 1929, the total power purchased by the Wabash Valley Electric Company was, in round figures, about 85,000,000 kilowatt hours, and the bulk

of it was purchased from the Indiana Electric Corporation. The records of the company would show the amount. The high step rate is based directly on the kilowatt hours consumed, and after a certain number of kilowatt hours have been used, the rate drops, but if the peak demand exceeds the figure named in the contract then the Indiana Electric Corporation would have to pay the high rate for the proportionate increase in the number of kilowatt hours used, which increased rate would continue under the temporary agreement for one year only during the particular month in which it was used. The result of this is that if the Wabash Valley Electric Company increases its demand on the Indiana Electric Corporation, the power purchased by the Indiana Electric Company from the Columbia plant comes at an average greater price. The rate of one cent per kilowatt hour established for current purchased by the Wabash Valley Electric Company from the Indiana Electric Corporation was based upon a consideration of the fact that the Wabash Valley Electric Company would operate the three local independent plants to relieve the Indiana Electric Corporation from a peak load which would increase the price of the current which the Indiana Electric Corporation purchases from the Columbia Power Company. The price for current paid by plaintiff to Indiana Electric Corporation is fixed by witness as president of Indiana Electric Corporation and not as president of plaintiff company.

The Wabash Valley Electric Company has essentially uniform lighting and large and medium power rates in force over its territory and essentially uniform rates are in effect throughout the territory of the affiliated companies in order to prevent rate discrimination between [fol. 318] various cities. Within the past seven years the system has made about 100 rate reductions, many of these being necessitated in order to correct the rates of companies which were acquired by the affiliated system. All rates changes were reductions, most of which were voluntarily made without the necessity of hearing and were approved by the commission.

The operations of the affiliated companies are under the same management. Witness is the chief executive of all of them. The construction of transmission lines or power system property by plaintiff or by any of the other affiliated companies is made under direction of the same man-

agement. The properties of the affiliated companies are managed and operated as one property being interconnected physically, but each company is a separate corporate entity owning separate property. There have been no company-wide rate inquiries before the Public Service Commission for plaintiff or for any of the other of the affiliated companies.

September 3, 1930.

W. A. PENNINGTON, witness for plaintiff, testified:

Witness resides in Chicago, Illinois, and has been connected with the Utilities Securities Company for the past eight years, and has been marketing, from time to time, various Indiana securities. Assuming that an electric utility is about to be reproduced, which has transmission and distribution lines in eleven counties throughout central western Indiana furnishing around fifty cities and towns with electreity, and in addition furnishing electricity to coal mines, gravel pits, cement mills and other large power users outside the boundaries of the municipalities, having approximately 17,000 customers; assuming that it is interconnected with other electric utility companies at points indicated on Exhibit 1, thereby having available electricity generated at the Dresser plant, the Columbia plant, the Twin Branch plant and the State Line plant, and that it will, in the very near future, have available to it, generation from a large plant at Michigan City, and that in con- [fol. 319] nection with its business, and as a part of the arrangement whereby it obtains its power from these large generating units, it delivers to affiliated electric utilities approximately 35,000,000 kilowatt hours out of a total output of approximately 75,000,000 to 80,000,000 and that the arrangement between it and connected companies is upon an interchange basis whereby the Wabash Valley obtains its current at a certain price and sells it or delivers it at the same price to other companies all of which being part of the general arrangement whereby it gets its electricity, assuming that it has a gross income of approximately $1,700,000, including as a part thereof the income from current delivered to affiliated companies, and further assum-

ing that its income from customers other than affiliated companies is approximately $1,300,000; assuming a financial setup which involves $3,064,900 worth of first mortgage bonds, $1,001,600 worth of preferred stock, and $1,021,000 worth of common stock, these all at par, and further assuming that there has been an excess of construction expenditure over realization from securities of some $272,000 then, in the opinion of this witness, the cost of selling preferred stock in the sum of approximately a million dollars would be somewhere between $5.00 and $10.00 per share at a par value of $100.00.

PHELPS KELLEY, witness for plaintiff, testified:

Witness resides at Chicago, Illinois, and is engaged by the corporation department of Halsey, Stuart & Co., who specialize in the underwriting and distribution of senior obligations of well known companies, utilities, railroads and industrials. For the past five years witness has assisted in the negotiations for new issues and the preparation of those issues for offering to the public. Assuming the reproduction of an electric utility with transmission and distribution lines in eleven counties throughout central western Indiana as evidenced by plaintiff's Exhibit 1, furnishing around fifty cities and towns in those eleven counties with electricity, and in addition furnishing electricity to [fol. 320] coal mines, gravel pits, cement mills and other large power users outside the boundaries of these municipalities, to the extent of more than one-half of its entire output, eliminating deliveries to associated or affiliated utilities, assuming that it has 17,000 customers and that it is interconnected with other electric utility companies with sources of power at the points indicated on Exhibit 1 at the Dresser plant, the Columbia plant, the Twin branch plant, and the State Line plant, and that it will have, in the very near future, available to it, generation from a large plant at Michigan City, Indiana; and further assuming that in connection with its business, and as a part of the arrangement whereby it obtains power from these large generating units, it delivers to affiliated electric utilities approximately 35,000,000 kilowatt hours a year out of an approximate

total output of 75,000,000 to 80,000,000; that the arrangements between it and connected companies is upon an interchange basis whereby the Wabash Valley obtains its current at a certain price and sells it or delivers it at the same price to other companies, all of which being part of the general arrangement whereby it secures its electricity; further assuming that it has a gross income of approximately $1,700,000, including its income from current delivered to affiliated companies at the same price at which it buys it, and also including an income from its other customers of approximately $1,300,000, assuming a financial setup which involves $3,064,900 of first mortgage bonds, $1,001,600 worth of preferred stock and $1,021,000 worth of common stock, all these valuations at par, and in addition to these securities, assuming that there has been an excess of construction expenditures over realization from securities of some $272,000, witness testified that, in his opinion, the reasonable cost in March, April and May of 1929 of selling bonds secured by the property mentioned in the hypothetical question, in the amount of approximately $3,000,000, would be four or five points, which would be the difference between the price at which they are sold to the public and the realization price. Six per cent bonds would be sold [fol. 321] slightly above par. The elements which constitute the cost and expense in selling bonds of this nature include the risk of carrying the bonds through a bad market, the cost of investigation, including appraisals and examination of property by competent engineers, legal expenses, selling and advertising expenses, distribution expenses, the overhead expenses of the company marketing the bonds, plus the cost of the money which the bondhouse must secure in order to float the issue.

Plaintiff's Exhibit No. 1 is admitted and read in evidence.

CHARLES W. SPOONER, witness for plaintiff, testified:

Witness is a consulting engineer dealing with public utility engineering and doing business at Chicago, Illinois, under the name of Spooner & Merrill, Inc. Witness was graduated from the University of Michigan in 1906 and

subsequently was associated with Gardner S. Williams, consulting engineer of Ann Arbor, Michigan, as engineer, chief draftsman and principal assistant engineer and was engaged principally in designing and building a number of hydro electric water works and sewage disposal plants. Subsequently, witness was employed with Professor Riggs of the University of Michigan, together with Professors Anderson and Cooley. During this period witness made inventories, valuations and reports of the Pere Marquette Railway, Detroit United Railways, the Michigan United, the Grand Rapids Street Railway, the Savannah, Georgia and Central Railway of Georgia and a number of others. Witness also made inventories and appraisals of all of the properties of the Consumers Power Company of Michigan, the Detroit Edison Company, the Detroit Municipal Lighting Plant and a number of others. Since 1917 witness has been in business for himself, engaged in making appraisals and inventories for banking house reports, as well as actually engaged in the designing and construction of various phases of public utility property. Witness has been familiar with the Wabash Valley property since 1921 at which time his firm made a report on the original [fol. 322] Wabash Valley property. In 1922 he made up reports on the Martinsville Gas and Electric Company, Spencer Light, Power and Water, Gosport Electric, Morgan County Light and Power, and Rosedale Electric, which reports were made with a view to the purchase of the property and on the strength of which the properties were purchased. In 1927 an inventory and appraisal of the property was made. This inventory is the one which was used in connection with the trial before the commission involving the facts of this case. The inventory is made up from a field inventory and account of the various properties. Included in the field inventory would be all physical items of property, for instance: An electric pole would be inventoried as to whether it was a northern or a western cedar, or a chestnut or cypress, or a pine, its height and diameter would be noted, as well as whether or not it was treated to resist decay; cross-arms, pins, insulators, primary and secondary street lighting wires, or transformers, cutouts or whatever might be on that particular pole would be noted down on the inventory sheet. Similar

detailed field notes would be made on substations, power plants, and other items of equipment. Since 1921 witness has been over the properties of the Wabash Valley Electric Company between two to four times a year. While the inventory work is going on witness' employes are also collecting data as to records and construction and reproduction costs of the various items of property owned. This data is based on investigation, quotations from manufacturers, and sources of information which are tabulated both from experience in construction and from various cost analyses. Then each particular unit is given its proportionate allocation of the overhead, labor, material and cost of financing which was necessary to set it up in working condition as a part of the whole system. The cost of reproduction and the inventory and appraisement have been made as of May 1, 1929. The last inventory of September 1, 1927, has been brought down to date by the utilization of the company's work orders, together with a field check of the major items. This study, which determined the retirements and additions subsequent to September 1, 1927, was made in connection [fol. 323] with Haskins & Sells. Plaintiff's Exhibits 2-A to 2-F contain an inventory of the Wabash Valley property as of September 1, 1927, revised as of May 1, 1929. These inventories were made up largely under the direct supervision of Mr. Cook of Spooner & Merrill, Inc. Throughout these exhibits the cost of reproduction is based upon prices as of May 1, 1929. These prices do not include the general overhead costs which must, of necessity, apply to the property as a whole and not to any particular unit. For instance, in order to reach the cost of certain exhaust piping a quotation would be obtained of prices prevailing upon a particular date for large quantity purchases. To the cost of each unit would then be added freight items, labor cost, tool expense for tools worn out, insurance on the labor payroll, the expense of purchasing and the expense of supervision by the foreman, all being taken into consideration in reaching a cost of reproduction. Exhibits 2-B, 2-C, 2-D, 2-E and 2-F are respectively lists of property going to make up a part of the distribution system and the property making up the low voltage system and also the property included in the general office stores of the Wabash Valley Electric Company on or about September 1, 1927, revised

so as to represent the true value of the property as of May 1, 1929. General overheads and intangible values are not included in these exhibits. Small items however, of property used with gas or water are included in these exhibits but have been adjusted and allocated out in another volume which will be made an exhibit. Exhibit No. 2-G is a summary of Exhibits 2-A to 2-F and omits all gas and water property. The cost of financing is computed upon the basis of the testimony of the previous witnesses, Mr. Pennington and Mr. Kelley.

Page 1 of Exhibit 2-G, column A, indicates the figures taken from the separate volumes entered as Exhibits 2-A to 2-F.

Column B represents retirements based on a consideration of Haskins & Sells exhibit and represents property [fol. 324] taken out at the same price at which it was included in the original valuation. These retirements are those occurring from September 1, 1927, to April 30, 1930, and represent a total of $308,440, which has been retired from the inventory made on September 1, 1927.

Column C is simply the arithmetical difference between columns A and B.

Column D represents the addition of the items of general overhead costs to structural costs. The different elements of overhead costs which are considered are the so-called acts of God, storm and weather conditions; the contingent necessity of overbuilding or removing the property of other utilities such as telephone properties; the possibility of labor disturbances; the probability of unforeseen natural obstructions such as flint rock in the bottom of condensor pits; the matter of damages to abutting land; the expense of consultation, advice and supervision with plans and specifications on the work; legal, administrative and organization expense; interest and taxes during construction. None of these overhead allowances extend beyond the completion of the plant and the property. Of necessity these overheads, incidental to construction, are moneys which have to be paid out of pocket. An interest allowance of 7% per annum has been allowed on each item of land which must be secured in advance of the construction work and a one year's allowance during construction has been made for each item. In all there are some $11,000 or $12,000 of interest charges of this nature. No interest

has been allowed on general equipment, such as office equipment, on the theory that such equipment will not be obtained until it is necessary to put the plant in operation. Similarly, no interest has been allowed on meters and transformers. On all other items 3½% interest has been allowed, being based upon a one year construction period plan. Allowance has been made for the possibility that a little interest could be obtained on the money which is on hand from day to day. The question of taxes has been determined by considering the tax levy made on March 1st at 60% of the true value. On that valuation the tax rate [fol. 325] of $3.00 a hundred has been figured.

Column E represents additions from September 1, 1927, to April 30, 1930 and is based on the Haskins & Sells exhibit. It is fundamentally a compilation of the company's records of additions to the plant between the dates indicated. Witness' force and the Haskins & Sells force reached this compilation primarily through the Wabash Valley Electric Company's job orders. These job orders show an estimate of the cost of a particular piece of work and an entry is subsequently made which will adjust the difference between the actual cost and the estimated cost. In all of these compilations it is the actual cost which has been considered.

Column F represents the value of the Wabash Valley properties less the retirements and plus the additions and betterments as of May 1, 1929, which is the new reproduction value of the entire property.

Witness' assistant, Mr. Cook, and his assistants, went over the property to make memoranda as to the conditions in which they found the property. There is little about transformers which deteriorates. Inspections, of course, must be made at regular intervals to determine the exact condition of each transformer to change oil, repaint transformer cases and replace bushings, etc. Meters are subjected to regular examination and occasionally it becomes necessary to replace the bearing jewels which cost, for the ordinary meter, about eighty cents. The reproduction cost of the meters is based upon the price of a meter tagged, that is to say, the cost of purchasing a meter, cartage, freight, and testing up to the time that the company puts a tag on it to indicate that it is suitable for service. Ordinarily, in the process of operation of an electric utility,

meters are installed and removed one at a time. The cost of reproduction here, however, has been figured on the basis of a load of them hauled at a time.

The depreciation of the property, which has been given a reproduction value of $4,928,134 on May 1, 1929, is [fol. 326] represented by the difference between the cost of reproduction new and the cost of reproduction less depreciation. By way of illustration, on page 215, Exhibit 2-G, the first item of Barnard Substation equipment is found to be in 95% condition. These percentages variously range from 50% up to 100%. In witness' opinion, about 80% of the property of the Wabash Valley Electric Company has been put in new within the last six or seven years, and from September 1, 1927 to April 30, 1930 $1,184,000 worth of new property was installed. In a general way, the property of the Wabash Valley Electric Company is substantially a new property. A utility of this nature must carry repair parts of all kinds, poles, crossarms, hardware, insulators, conductors, wire of different sizes, transformers and, in witness' opinion, $140,000 for materials and supplies of this nature is a fair and reasonable allowance. It is also necessary to carry sufficient funds as working cash to meet six weeks of operating expenses. Witness believes that the figure of $182,185 for the cost of financing the building and construction of such a plant is a reasonable amount. In a property of this kind the going concern value is the difference between a property which is constructed but has no business and the same property which has its business attached. It is particularly true of a utility of this nature since steps must be taken to gain customers and secure the use of various electric appliances and to educate the people to some extent. In witness' opinion it would take a four year period to re-establish the present business of this company. The first year it would start with 30% of the business connected; at the end of the first year it would have 60%; at the end of the second year 80%; at the end of the third year 90% and at the completion of four years' operation it would have 100% of the present company's business. The computation of going value is based on the amount of investment upon which a return must be made and upon which there would be an interest charge. Then in the first year starting with the initial number of customers of 30% and ending with 60%

the average would be the arithmetical mean of 45. Simi-
[fol. 327] larly, in the second year there would be 70% of the system loaded; the third year 85%; the fourth year 95% and at the begin-ing of the fifth year a complete load. Thus, by subtracting from 100% the load during any given year, the portion of the plant not yet in operation and producing revenue could be reached which, in this instance, would reach a total of unloaded items of 105% spread over the four years. The annual carrying charges would be interest at the rate of 8% on the amount of property involved which is, in round numbers, $3,900,000. Depreciation would be 4% of the depreciable property and amounts to $157,000. Taxes on the $3,944,000 are estimated to be $84,000 and the total of the items of the annual carrying costs would amount to $557,000. These items are applied to the property in place and installed but not used because the business has not yet been built up to use it. In addition to this item of cost, there would be the cost of securing the business itself, including advertising and salesmen, demonstration, soliciting and canvassing, which would total $42,100 per year. Before a company could actually start operation it would be necessary to have certain key men on the job for at least a month, whose salaries are estimated at $2,500 and necessary traveling expenses, etc., at $1,680. The working force of the company should be on the job at least two weeks in advance of the actual construction, which cost has been estimated at $6,511. Because of the waste involved in coordinating a new force with new plants 5% more employes have been taken for the first year and 10% added to the cost of obtaining a personnel, because of increased labor turnover, all of which amounts to $17,167. To sum up these figures, the total of carrying cost of the unloaded plant is $584,999; cost of securing business $143,400; personnel cost $17,167, giving a total of $745,566, which is the minimum amount of going concern value, which is approximately 15% of the money value.

Plaintiff's Exhibit 2-H is an inventory of the distribution system in the city of Martinsville, Indiana, made as an actual new inventory and appraisal on May 1, 1930 and was made in conjunction with the engineers of the Public Serv-
[fol. 328] ice Commission. On page A of this exhibit is

shown land structures and equipment for local and Martinsville use only. The next item shows the distribution system consisting of poles, crossarms, overhead conductors, line transformers, and meters. Materials and supplies, working cash, going concern value, and cost of financing have been allocated on the basis of the number of dollars involved in the Martinsville plant. This whole inventory is made in substantially the same manner as the previous inventories of the entire Wabash Valley Electric system, and the figure $135,000 represents the cost of reproducing the Martinsville property, less depreciation plus certain items as of May 1, 1929. Plaintiff's Exhibits 2-A to 2-H are admitted and read in evidence. All of these several exhibits have been reached through witness' conception of reproduction cost under modern methods and modern efficiency at prices for material and labor as they exist on May 1, 1929. Meters and distribution transformer installation have been computed in greater installation units than the present company installs them but it has not been assumed that they would go out in a wholesale manner in great truck loads.

It is contemplated that the exact plant in existence would be reproduced and, in witness' opinion, all of the properties of the Wabash Valley Electric Company are in excellent shape and excellently managed.

The original inventory used in the appraisal contained in Exhibits 2-A to 2-F was made as of September 1, 1927. This inventory and appraisal covers all of plaintiff's electric property and includes the local property in about fifty communities that it used for the purpose of distributing electricity in those communities. Martinsville is one of them. Witness was given a general order by plaintiff in 1927 to make a general inventory and appraisal of its property, he presumed it would be used both for the purpose of a merger proceeding and this rate case. The distribution system and some local items in the power plant in Martinsville is used and useful only for giving service to the people in Martins- [fol. 329] ville. The discounts which would accrue to the present plant by virtue of its association with other companies and holding companies have been considered and been given effect in this inventory.

There would, however, be some items of property which are incapable of being distinctly local or distinctly a part of the general system.

The fair value of the property located within the limits of any community is useful in determining the cost of service of that community. Any such local items are useful in making certain that one community is not saddled with a rate which would be inapplicable in another. The differences should be ironed out. To obtain the amount of the fair value of the property that would be used and useful in Martinsville the local property in the other towns and communities is not needed. The appraisal ordered in 1927, containing this same inventory, was used before the Public Service Commission in relation to a petition to merge Wabash Valley Electric Company and other companies. Witness made appraisals of the properties of eleven subsidiary companies, including plaintiff, of the Central Indiana Power Company group, which were used at the merger hearing. Witness thinks he was employed by Central Indiana Power Company to make all these appraisals. The bill for all this work showed the work for each company and was put through to the same man. Witness does not know how the company distributed the charge he made as between the merger and rate hearings.

At the time witness was making the appraisal and inventory for the Wabash Valley Electric Company he was also making appraisals for eleven subsidiary companies of the central Indiana group corporation. In a general way, the boundaries of the Wabash Valley Electric Company extend on the west to the state line, on the south to the neighborhood around Sullivan, Indiana, and on the east to the west edge of Indianapolis, and on the north to Lafayette. In making up the report and inventory, witness relied upon reports of subordinates. The local distribution [fol. 330] plants at Martinsville and the numerous other communities now owned by plaintiff had been built by other companies and were afterwards purchased by plaintiff.

The property of the Wabash Valley Electric Company as of May 1, 1929, was not constructed at any one time but the major portion of it was built within a period of five or six years. The inventory and estimated cost of reproduction is based on the assumption that the Wabash Valley Electric Company, as a new corporation, would do the construction work itself, buying material, employing labor and supervising the work. For common labor on the buildings

a wage average of forty cents an hour was taken. Ground men are allotted forty-five cents an hour; truck drivers fifty-five cents an hour; labor foreman fifty cents an hour and linemen seventy cents an hour.

The biggest item in the local distribution system is gathered together under the title of poles, towers and fixtures. Pole prices are based upon quotations from various pole concerns and are shown in Exhibit 2-H, page 2. The unit cost of a 30′ 6″ northern cedar pole is built up as follows: Price of pole f. o. b. point of delivery $7.85; average haul of one mile to storage point $.26; labor incident to hauling $.26; framing and roofing of top of pole $.44; cost of unloading from freight car $.25; digging pole hole $1.75; erecting and setting pole $1.37; for contingent matters such as purchasing, broken poles, etc., 2% has been added to each dollar of material; for cost of tools 2% has been added to cost of material; purchasing expense has been estimated at one-half of 1% of cost of material; in round figures 5% has been added for costs of this nature. To the bare cost of labor has been added 18% for contingent matters such as compensation insurance, direct supervision, etc. Thus, the total price of the pole in place is shown in the inventory as $13.05. Estimates of the unit costs of insulators was reached on a similar basis; with a slightly higher percentage for breakage and storage. The highest percentage allowed on materials for undistributed costs is 18%, which is not on material alone. This is because small articles of equipment such as insulators are easily broken and it is more difficult to get an accurate [fol. 331] count of them. This item is largely based on experience in the construction of transmission lines. Poles used on high lines as shown in Exhibit 2-B, page 18, are given a slightly higher unit cost owing to the fact that the high line crews carry a higher wage scale and also put in a portion of their day in traveling to and from their work on company's time. This difference, plus the longer haul involved accounts for the difference in price.

The next item is copper conductors as shown in Exhibit 2-H, page 8. Within the town of Martinsville there is a unit price of $259.77 per mile of number 4 triple braid water proof conductor. The price for this type of copper wire as of May 1, 1929 is reckoned on present contracts of the company and the market value of copper. The prices,

of course, are based on large orders involving car lot shipments. There has been a drop in copper prices since May 1, 1929. For example, No. 4 solid copper wire was priced in the appraisal at twenty-one cents per pound. It is now about six cents per pound cheaper. The total cost of reproducing the overhead conductors in the distribution system at Martinsville would be $17,723. The cost of the copper service wires in Martinsville would be, roughly, $7,936, and the total cost of the copper wire used in the above two ways would be as of May 1, 1929, $25,679. Copper constitutes the largest single item of cost in reproduction costs of the transmission system. The unit price of copper conductors is built up on the basis of purchase costs, labor costs, supervision costs, etc., similar to the manner in which the unit costs of poles is reckoned. The going concern value of the purely local Martinsville property is computed at 15% of the cost of reproduction new and is valued at $17,063 as applied only to the allocated portions shown on Sheet A of Exhibit 2-H. Exhibit 2-G, page 1, Column F, represents the cost of reproduction new of the four generating plants at Clinton, Spencer, Sullivan and Martinsville up to April 30, 1930 as amounting to $628,286, from which has been deducted for depreciation $393,108.

Of the property inventoried in Exhibits 2-D and 2-E, [fol. 332] only the Martinsville local property is used in distributing current in Martinsville. The other property of local character outside of Martinsville is not used in bringing electricity to Martinsville.

In reckoning the going concern value of the affiliated properties at 10% in the merger hearing witness took into consideration the condition and general situation of the interurban and street railway lines involved which are in poor condition and not far from the necessity of receivership, and reached a figure of 10% based on the whole system of which the Wabash Valley Electric Company is a part only. I stated at the merger hearing that if I were testifying to the going concern value of the electric properties alone in the Central Indiana Power group it would be in excess of 15%. The going concern value for Martinsville is simply an application of the figure which was found to be the going concern value of the Wabash Valley Electric Company as a unit.

Plaintiff's Exhibit 11 is identified as a summary of the undistributed unit costs as applied to various units through-

out the distribution transmission system, substations and plant equipment. For instance on page 1 of Exhibit 11 under the item "Poles" the ultimate percentage on material is 5% and on labor 18%. These, however, are not to be taken as straight averages, but are weighted according to the amount of dollars involved in material and labor. Thus, the average undistributed cost of poles is not 23% but is somewhere in the neighborhood of 10%. One-half of 1% is used on large equipment to represent insurance in transit and items of like nature. Because of the difficulty of estimating weights of switchboard and bus structure an item of 2% to cover freight is added, which is a close approximation to actual experience in such matters. On switchboard and bus structure there are so many miscellaneous small items which are not specifically inventoried that percentages of 13 and 18 are added to cover these items, the percentages being based on superintendence and analysis of actual construction costs. Plaintiff's Exhibit 11 admitted and read in evidence.

[fol. 333] The percentage of annual allowance which must be made for replacement on renewals of equipment is a matter of judgment and experience. A straight line depreciation and age table does not fit the situation. Conditions change so that a perfectly good piece of equipment may be retired in one-fourth of its normal life. On the other hand, various pieces of equipment may last three or four times as long as the normal life expectation. A reserve must be maintained to take care of future conditions and obsolescence and inadequacy of equipment which will come in the future. In witness' judgment, 4% of the cost of reproduction new is a reasonable amount for the replacement and renewal expense.

A public utility has a larger capital investment per dollar of revenue than other businesses in the industrial field. Often a utility will spend annually in excess of 30% of its gross revenue for extensions and additions. In order to finance these extensions it is necessary to obtain money from the investment market. Therefore, the company must earn a sufficient rate to attract investors. Because the rates for money fluctuate more or less and because a utility is subject to fluctuations in periods of depression during which the return cannot be shifted promptly enough, it is necessary to permit a surplus to accumulate to take care of dividends during lean years.

To take care of the return on bonds, debt discounts, borrowed money and stock dividends, it is necessary to have a rate return of 7%. In order to accumulate a surplus, and make it easier to finance the company, the rate of return should be not less than 8% based on the fair value determined for rate making purposes which may be represented by the cost of reproduction new, less depreciation. The Wabash Valley Electric Company has been well planned and facilities for distributing electrical energy have been provided with proper anticipation of the needs and growth of the territory served. The standards of maintenance of the property have been excellent.

The Wabash Valley Electric Company is benefited by pur- [fol. 334] chasing power from the Dresser plant at one cent and delivering it to the Northern Indiana Power at the same price per kilowatt hour and absorbing the line loss because it is benefited by being a part of the power pool since, if the Wabash Valley purchased only the amount of energy that it used on its own system, it would be forced to pay a greater price than has been paid to the pool. Possibly for the time being the Wabash Valley Electric Company could purchase all the power it needs from the Dresser plant, but looking ahead to changing conditions it might be that the energy from the Dresser plant would be diverted elsewhere requiring the Wabash Valley Electric Company to purchase current from the north which would permit them by present reciprocal arrangements to purchase at a price of one cent per kilowat hour. In reckoning a 4% rate for annual depreciation, witness was forced to take into account the fact that local distribution systems and equipment are subject to a much higher rate of depreciation than so-called power system. Spooner & Merrill's cost of reproduction new on this property is so near present value that I would apply the rate for annual depreciation to cost of reproduction new. Witness' idea of present value is cost of reproduction new less depreciation. 4% is, therefore, an average over the whole property. The depreciation rate of 4% is an engineering estimate and the company is not old enough to determine adequately what the actual practical rate has been, but the history of the company shows that depreciation replacement has varied from 1% to 6%.

Plaintiff's Exhibit 12-A is a certified copy of the commission order of January 26, 1929. Plaintiff's Exhibit 12-B is

the supplemental order in the same proceeding approved February 15, 1929. Both are admitted and read in evidence.

September 4, 1930.

DONALD M. COOK, witness for plaintiff, testified:

Witness resides at Chicago, Illinois and is vice president of Spooner & Merrill, Incorporated, consulting engineers, [fol. 335] and has been associated with them since June, 1927. Witness graduated from the University of Michigan in June, 1915; was later employed by the Village of Winnetka, Illinois, with duties involving, among other things, the operation of municipal water and light plants. In 1916 witness was employed by the City Engineer's office of Flint, Michigan and since 1920 has been engaged in inventorying and appraising electric utility properties in association with Mr. Spooner. Since April, 1921, witness has been in contact with the different properties of the Wabash Valley Electric Company and has made two complete inspections and has investigaged various parts of the property at three or four other times.

The valuation of the Wabash Valley Electric property subsequent to September, 1927, is based upon a study of the detailed inventory by Spooner & Merrill. Haskins & Sells were employed by the Wabash Valley to make a study of additions to the property subsequent to September, 1927. It was necessary to determine what equipment had been retired from use by the Wabash Valley Electric and this equipment was valued at the same figure for retirement purposes as had been given it in the 1927 appraisement. The figures as shown in the exhibits fairly represent the reproduction value less depreciation of the property plus intangibles, going value, etc., as of the dates indicated. The total reproduction value less depreciation, not including intangibles, material, supplies, or working cash of the purely power system property of the Wabash Valley Electric Company is given as $2,837,237 on page 3 of Plaintiff's Exhibit 2-I. In like manner the corresponding value of the local property of the Wabash Valley Electric Company is $1,514,515, including the Martinsville property. In witness' opin-

ion, the allocation which has been made of property as set out in Exhibit No. 2-I is a fair allocation and division as to use for power system purposes and for local purposes.

Plaintiff's Exhibit 3-A is a photographic reproduction of a section of the map of Martinsville, Indiana, indicating the location of poles. Exhibit 3-B is a schedule of wire showing [fol. 336] sizes and kinds. Exhibit 3-C is a copy of one page of field notes as made in inventorying the electric distribution system of Martinsville. Exhibits 3-D and 3-E are photographs of a single pole, No. 376, at Martinsville, which is also indicated on Exhibit 3-A. Plaintiff's Exhibits 3-A to 3-E, inclusive, are admitted and read in evidence. The inventory of the Martinsville local plant is summarized on page 112 of Exhibit 2-A. As of April 30, 1930, Martinsville had 1,635 electric consumers within the municipal limits and 339 outside. There were 640 gas consumers who were considered in the allocation of the property there. Spooner and Merrill worked out no allocation of power system property value to Martinsville as representing that part of the general power system property that is used and useful in giving service to the town of Martinsville. The allocation of the power system property as a whole out of the appraisal of plaintiff's entire property is as far as they went.

The line usually runs through the substation and the current may come from either way on the line. The top intake at the Martinsville substation is 66,000 volts. A 33,000 volt current leaves that substation on the line to Spencer. This line serves either Martinsville or the other way. A 66,000 volt line to Bloomington leaves the Martinsville substation.

There is, in almost every instance a substation from which energy is taken from the low side for rural and other communities. There are about fifty substations in plaintiff's system. About twelve per cent of the total substation figure in the Spooner and Merrill appraisal is treated as local property, and eighty-eight per cent of that figure is in the allocation to power system property. None of the substations are used or useful in distributing current inside Martinsville. The substation at Martinsville is allocated to power system, but is used to step the current down for distribution in Martinsville.

The method of arriving at the cost of financing the property of the Wabash Valley Electric Company, as a whole, [fol. 337] was reached upon figures furnished by Mr. Kelley and Mr. Pennington which, by arithmetical calculations reach 3.8 per cent average on the securities as a whole, which percentage has been carried in the appraisal as the cost of financing. No cost of financing has been included, for the common stock since it has been assumed that it is the company's money which has been used to purchase the common stock. If common stock were sold it would be necessary to add certain costs incident to the sale thereof.

Plaintiff's Exhibits 4-A and 4-B are figures prepared by Haskins & Sells to which witness has previously referred regarding additions to property of the Wabash Valley Electric between August 31, 1927, *to* February 28, 1929. On Exhibit 2-G, Column E, the additions from September 1, 1927, to April 30, 1930, are shown to be $1,184,873 on the entire property of the Wabash Valley Electric Company.

Plaintiff's Exhibit 2-I is read and admitted in evidence.

In Exhibit 2-I, page 8, under substations, Lafayette substation at 66,000 kilowatts is listed at $115,282, and is placed under power valuation.

The various localities, within their limits, are supplied at a voltage which is customarily about twenty-three hundred volts. It is, at that voltage, only conducted through the streets and to the secondary lines from which the customers are supplied. Such a distribution system exists in each of the communities in plaintiff's system. The power system conducts current at varying voltages from one point to another entirely for the convenience of the general situation. This feed power is conducted from Terre Haute to Indianapolis at 132,000 volts over large conductors. To Clinton it is conducted from Terre Haute at 66,000 volts over smaller conductors. It is conducted from Clinton to Greencastle and Bainbridge and other parts of the system usually at 33,000 volts. The station at Lafayette as one of its functions switches the 66,000 volt transmission through Lafayette and benefits the various local communities. The substation at Roachdale listed at a unit cost [fol. 338] of $9,286 is also allocated to the power system and steps down the current to 13,200 volts and 2,300 volts

in order to serve certain local communities—at Russellville, Waveland, Brownsville, New Market, Ladoga, Barnard and North Salem. It does not furnish current to Bainbridge or Martinsville or any other town served by the Wabash Valley Electric Company but is useful as a part of the whole power system because the entire Wabash Valley Electric system is designed as one unit to furnish energy in the cheapest and most satisfactory way possible. Plaintiff's power system lines are interconnecting among themselves and connect with each other through the lines of affiliated companies, furnishing this energy through substations which are installed at the convenience of the furnishing company, at advantageous points, to transform the voltage for the local distribution system.

That part of plaintiff's property shown on Exhibit 1 which serves Sullivan, Hymera, Jasonville, Coalmont and Clay City is not connected with any other part of plaintiff's system by its own transmission lines.

The line from Sullivan to Jasonville and Clay City could not supply current to Martinsville. It is included in Spooner and Merrill's appraisal and falls under power system property.

From an engineering standpoint, the system of the Wabash Valley Electric Company is sound and should exist in its present form for its present purposes. The substation at Roachdale is properly located and enables Martinsville to receive its reward by virtue of more efficient operation of the system as a whole. It would not be possible to sell electricity throughout the Wabash Valley system at an average cost to all customers. A coal mine could produce its own energy and the price must be placed at a rate which will permit sale of the current and be an advantage to the system as a whole, by increasing the load factor.

The local distribution systems of eleven towns throughout the Wabash Valley territory have, within the last three or four years, been rehabilitated to an extent which sub- [fol. 339] stantially amounts to a complete rebuilding. Since 1922 twenty-two town distribution systems have been completely built new in addition to the eleven which have been rehabilitated. Thus, out of forty-six towns, where the Wabash Valley owns the distribution systems, thirty-three have been entirely rebuilt or substantially rebuilt in the last four or five years. In all cases property treated

as local in Martinsville is similar to corresponding property which has likewise been allocated to local use in other communities.

Plaintiff's Exhibit 13 and Plaintiff's Exhibit 14 are studies which witness has made as to copper prices. Decreases in copper wire prices from May 1, 1929, to September 1, 1930, if extended in dollars for the whole system amount to $130,733, and for the local Martinsville property $6,575. These estimates are based on price up to structural cost only. There is no overhead added or any other elements that are put on the appraisal sheets following. Plaintiff's Exhibit 13 and Plaintiff's Exhibit 14 admitted and read in evidence.

Defendants' Exhibit 26 is a detailed study of the differences of the appraisal of Spooner and Merrill and the appraisal of Hugh M. Abbett. The Clinton substation has been valued in the commission's appraisal at $57,067 and on the Spooner and Merrill appraisal at $67,426. This difference is largely due to the inclusion by Spooner and Merrill of switching equipment used directly in operation, which Abbett did not put in. The Bainbridge substation was estimated by Spooner and Merrill at $4,000 which was not included by Mr. Abbett although he testified it should have been valued at about $3,000. The commission has estimated the substation at 92.3% condition, and Spooner and Merrill have estimated the condition at 96.7%. This difference of 5% is largely due to Mr. Abbett's theory of accruing obsolescence.

Mr. Abbett threw into the commission's power system estimate all of the equipment in the generating plant at Clinton. The total of the differences between the commission appraisal prepared by Abbett and the Spooner and [fol. 340] Merrill appraisal is given as $295,892, which is the difference between the two estimates of the cost of reproduction new less depreciation of the power system property. Abbett allowed 10% for going value and Spooner and Merrill allowed 15%.

Plaintiff's Exhibit 27 is a statement of the comparison of appraisals by Spooner and Merrill and the Public Service Commission of the Martinsville local electric distribution system as of May 1, 1930. The commission estimates the cost of reproduction of the strictly distribution property at $70,104 and Spooner and Merrill at $86,070. Part of this

difference is due to the fact that the commission used May 1, 1930 prices as compared to the Spooner and Merrill prices of May 1, 1929. The commission also used a forty cent meter setting charge as compared to Spooner and Merrill's charge of $1.05.

Spooner and Merrill have included slightly less for overhead because of a different mode of computation and have included the power plant land and structure and switching and direct current equipment used locally which was not included in the commission's estimate, so that the total cost of reproduction new, as estimated by Spooner and Merrill, is $113,752 as compared to the commission estimate of $86,-845. The commission has considered the physical property without overhead at an average of 84% condition, while Spooner and Merrill have used 88%. The change in copper prices, which were lower in May 1, 1930 has also had influence in the valuation. Spooner and Merrill's figure for reproduction of the power system new, less depreciation is $3,637,650 as compared to the commission's figure of $2,868,-366, which makes a difference of $769,284. The difference in appraisals of the physical property, however, differs only in the amount of $295,892, but Spooner and Merrill have allowed $117,620 for cost of financing and the commission allowed nothing. Spooner and Merrill's estimate for going value is approximately $155,000 more than the commission figure.

[fol. 341] September 5, 1930.

ROBERT B. SMALL, witness for plaintiff, testified:

Witness has been employed by Haskins & Sells, certified public accountants, Chicago, Illinois, since 1923. Prior to that time witness had experience as an insurance accountant. During the past six or seven years witness has been engaged in auditing the books of various public utility companies, including the United Public Service Company, the Central Public Service Company and the several small companies of which they are composed. Witness has also prepared mortgage trustees' reports for banks.

Since 1923 annual reports and audits of the accounts of the Wabash Valley Electric Company have been made for

the trustee under their mortgage. The purpose of these reports is to see that the Wabash Valley Electric Company capitalizes only legitimate capital charges and that no expense items go into capital. Plaintiff's Exhibits 4-A and 4-B were prepared by Haskins & Sells and show that the Wabash Valley Electric Company from August 31, 1927 to February 28, 1929, made additions to its electric property in the amount of $535,228.69. These figures were reached by examination of company vouchers, checks and invoices, labor payrolls and apportioned book entries.

By similar computation the figure of $293,635.93 was reached as the estimated book value of retirements during the period from August 31, 1927 to February 28, 1929. Page 1 of Exhibit 4-B shows plant property additions of the Wabash Valley Electric Company as amounting to $759,000, plus, for the period from February 28, 1929 to April 30, 1930. The estimated book value of the plant property retired by the Wabash Valley Electric Company for the same period is $183,140.54. All of these figures have been reached by the same process as previously outlined by witness. For the year ending December 31, 1929 maintenance cost amounted to about 3½% of the gross revenue for the same period.

[fol. 342] Frank W. Martin, witness for plaintiff, testified:

Since 1922 witness has been in the employ of Sargent & Lundy, consulting engineers at Chicago, Illinois. Prior to 1922 witness was graduated from George Washington University, Washington, D. C., was employed with Franklin Automobile Company as engineer for about a year and taught mechanical engineering at the University of Illinois for about two years. Sargent & Lundy are engaged primarily in the design and supervision of the construction of steam electric generating plants. In this respect they have supervised the construction of about 15% of the total steam generation in the United States as well as various other plants in South America and Europe.

Witness has investigated the cost per kilowatt hour of generating electricity at Martinsville. Three methods have been taken into account. These methods are shown in plain-

tiff's Exhibit 5 which was prepared by witness. The first scheme involves adding certain new material and machinery to the existing plant at a cost of $52,443 at prices as of the present time, which are somewhat lower than prices were in 1929. Under this plan $129,900 of the present valuation of the equipment now at Martinsville would be retained. The land, of course, would be retained in each of the plans.

The total value of the completed plant under plan 1, including equipment, land, supplies and repairs, operating cash, going concern value, cost of financing, would be $206,710, but the plant as rehabilitated would not be a very good engineering proposition. On an estimated output of 2,535,000 kilowatt hours, with coal at a price of $3.20 per ton, the cost per kilowatt hour to manufacture electricity would be 3.266 cents which would permit a 7% return on the investment. On the basis of an 8% return the cost per kilowatt hour would be 3.347 cents. An increase of ten cents a ton to the price of coal would increase the cost per kilowatt hour about $.0035.

[fol. 343] The second scheme contemplated a more complete rehabilitation of the Martinsville plant which would be necessary if the plant were to deliver uninterrupted and reliable service. Including certain equipment of the present plant which could be used at a depreciated value, the value of such rehabilitated plant would be $251,344. Under this scheme the cost per kilowatt hour on a 7% return on the investment would be 3.21 cents and reckoned upon an 8% return on the investment the price per kilowatt hour would be 3.221 cents, which is reckoned on the cost of the current at the station switchboard and without any transmission or distribution charges.

Scheme three contemplates an entire new plant with modern machinery and engineering design, at an investment of $330,222. This plant would produce electricity at a cost of 3.052 cents per kilowatt hour on an investment return of 7% and at a cost of 3.181 cents per kilowatt hour on the basis of an 8% return. An increase of ten cents per ton in the price of coal would increase the cost per kilowatt hour .02 cents since scheme three will operate on about half as much coal as scheme 1. Scheme three would be the cheapest and most economical way of furnishing electricity to Martinsville if an isolated plant is used.

However, the most economical method would be the use of power from a high tension transmission line. In a local plant of similar size to the one at Martinsville located at Berlin, Wisconsin, the generating cost without fixed charges for the year 1929 was 2.22 cents per kilowatt hour. A similar size plant located at Watertown, South Dakota had a generating cost of 2.37 cents per kilowatt hour without fixed charges. The cost of generating electricity at the State Line Generating plant, which is one of the very largest in the country, is something under a cent per kilowatt hour. The cost of generating electricity is lower at a large plant like Dresser, State Line or Columbia than at a small plant, and can be delivered cheaper at Martinsville over a transmission system than it could be generated locally. Witness thinks the cost of generating energy at [fol. 344] the Columbia plant is half a cent or less. The trend in generating costs of current by large plants is downward. The cost of generating current about 1900 was quite high, then with the introduction of steam turbines, about 1903, the cost dropped very rapidly until about 1910 or 1912. Then, with the slower changes in equipment designs, the cost was reduced gradually until the time of the war, when it increased. Since the war the cost trend has been downward on a somewhat slower rate and is still downward. At the present time a generating cost of under half a cent is probably feasible in the larger central plants. It is not possible to get anything like such production costs in localized plants. It might be feasible in a new plant built under the most efficient generating conditions to produce current at around a half cent per kilowatt hour, but this would make no allowance for return or fixed charges.

Plaintiff's Exhibit 5 admitted and read in evidence.

September 9, 1930.

CHARLES A. HAMILTON, witness for plaintiff, testified:

Witness resides at Grand Rapids, Michigan and is a member of the engineering firm of Hamilton & Weeber. Witness was graduated from Michigan State College in civil engineering in 1911. For seven years after graduation witness was engaged in the operation and construction of

utilities. In 1918 witness became associated with Mr. Spooner in appraisal work. He continued this association until witness went into business for himself.

Witness spent three years in the reconstruction of a power plant at Springfield, Illinois; was engaged two seasons in Springfield, Ohio, in the construction of a local plant there of 5,000 kilowatt capacity. In 1923 witness designed and kept close contact with the construction of a local plant at Logansport of 2,000 kilowatt capacity; witness was associated with Mr. Spooner in an appraisal of the Merchants Heat and Light properties in Indianapolis. Witness has now completed a program for the reconstruc- [fol. 345] tion of the utility plant at South Haven, Michigan; and is now engaged in a reconstruction program for the municipal plant at Holland, Michigan at a cost of about $400,000.

At the request of Mr. Charles W. Spooner witness made a study of the possibility of remodeling the generating plant at Martinsville, Indiana, as evidenced by Plaintiff's Exhibit 6. Good engineering practice requires that an isolated plant should be built so that the load may be carried with any one unit out of service.

At Martinsville this would require, under what is designated as plan 1, the retirement of a Corliss engine unit and the installation of a 750 kilowatt condensing turbine. Plan 2 as outlined in the report contemplated the additional installation of a new boiler. Plan 3 contemplates the construction of an entire new plant with two units of 750 kilowatts each. Prices on each of these plans are reckoned on prices current during the past six weeks.

Plan 1 is estimated to cost $66,816, which cost is built up on an estimate of cost of material, labor, engineering supervision and general overhead. The total cost of the plant when completed is estimated to be $201,696. Operating costs, based on coal at $3.20 a ton, are estimated to be 3.4078 cents per kilowatt hour. An increase of ten cents per ton in the cost of coal increases the cost of current per-kilowatt hour $.003540.

Plan 2 is figured on the same basis of estimates as Plan 1; contemplates the utilization of a little less of the old property and the addition of more new equipment, and the cost of generating electricity per kilowatt hour is estimated to be 3.26 cents on an 8% return basis.

Plan 3 contemplates a new plant of modern design which probably would cost a bit more than the reproduction of the old plant. Under this plan an estimated cost is given of three cents per kilowatt hour on an 8% return basis.

The component parts of the various estimates are taken from the experience of witness in previous jobs. Plan 2 on [fol. 346] page 15 shows a building which is comparable to a building construction job at South Haven, Michigan. Similarly the boiler described is almost identical with the boiler installed at the Vassar plant near Saginaw, Michigan. The boiler feed water system is similar to that used at South Haven as is also the coal handling equipment. The turbine is identical with the one installed in Traverse City, Michigan, two years ago. A plant comparable to the one at Martinsville is located at South Haven which had operating costs for the year ending March 1, 1929, of 2.47 cents per Kilowatt hour. From March 1 to October 1, 1929 their operating costs were 1.79 cents per kilowatt hour but during that period the plant produced 1,345,000 kilowatts which is more than the Martinsville plant would produce in a year. It is impossible to compare costs per kilowatt hour between different plants unless each has the same load factor and capacity. The figures given on the South Haven plant did not include expenses by way of taxation and allow nothing for return. Under the plans developed by witness for Martinsville the bare operating cost under Plan 1 is 2.33 cents; Plan 2 1.90 cents and Plan 3 1.359 cents. Plaintiff's Exhibit 6 admitted and read in evidence.

William V. Burnell, witness for plaintiff, testified:

Witness resides in Wollaston, a suburb of Boston and is employed as an appraisal engineer by Stone and Webster Engineering Corporation, which is a subsidiary of Stone and Webster, Incorporated. Stone and Webster Engineering Corporation is engaged in engineering and construction, together with preparation of reports and appraisals and does a very large quantity of electric utility work. Witness was graduated from Tuft's College in 1904 and was employed by Stone and Webster as a Superintendent of Construction from 1906 to about 1921. Subse-

quently witness was transferred to appraisal work for about four and a half years and has been appraisal manager for the Stone and Webster Engineering Corporation for a little over two and a half years. As Superintendent of Construction in the Stone and Webster organization, [fol. 347] witness did considerable utility work in the state of Indiana, in the New England states and in Texas. Witness has personally supervised the construction of $12,000,000 worth of utility property and has been directly responsible for appraisals of property amounting to a billion and a half dollars.

The testimony of this witness will be predicated upon the entire records of the Stone and Webster organization in so far as they are practical and material to the work at hand. Stone and Webster are frequently called upon by bankers and others to check up or test the validity of appraisals made by other persons. In this connection Stone and Webster have been requested to check up the correctness and reliability of the appraisal of the Wabash Valley Electric Company made by Messrs. Spooner and Merrill. Plaintiff's Exhibits 2-A to 2-H, inclusive, describe the material of the appraisal with which witness worked. Plaintiff's Exhibit 2-I was not checked personally by this witness but was used by a Mr. Sittinger. Plaintiff's Exhibit 2-H, the inventory of the Martinsville distribution system, was checked by witness. In reviewing the unit prices applied by Messrs. Spooner and Merrill, witness was able to arrive at a reasonable conclusion as to the level of prices and the fairness of the prices used by Spooner and Merrill. The comparison of the unit costs of Spooner and Merrill with the independently built up unit costs of Stone and Webster results in the determination that the unit costs of Stone and Webster would run about 5% higher than those used by Spooner and Merrill. Stone and Webster compute their prices on the theory that various general contractors would be employed while Spooner and Merrill proceed on the assumption that the Wabash Valley Electric Company would build up its own construction organization. Witness is of the opinion that the greater efficiency can be obtained through the general contractors' organization.

Plaintiff's Exhibit 7 covers the check and appraisal made by Stone and Webster. Stone and Webster have added a

general contingency item of $160,000 which ordinarily would be distributed under the head of structural costs. [fol. 348] This represents the difference between the estimate of Stone and Webster and that of Spooner and Merrill. It is not the resultant final difference between the two appraisals but is only the difference between what Stone and Webster would include under the head of structural costs and what Spooner and Merrill have included under that head. In the main, the property representing additions and betterments taken from the records of Haskins and Sells has been identified by Stone and Webster in the field and its general condition verified.

The allowance of cash for operating expenses is reckoned on the cost of six weeks of operating expenses after deducting therefrom the cost of purchased power, and in round figures amounts to $200,000. For the purpose of construction it has been assumed that the total amount of funds required would be obtained and interest paid from the date upon which the money was obtained. It has been assumed that the funds would be obtained from some affiliated company and would not be promoted by a separate organization going out to the public and that half of the money would be advanced at one time and the remainder at the end of six months, assuming a construction period of one year.

An interest allowance on unexpended monthly balances during the period of construction of 2% has been made. The money which would be necessary to raise is represented by the cost to reproduce new amounting to $5,935,138, less the item amounting to $540,000 designated as going value, since the cost of going value develops only after the property has gone into operation and involves a sacrifice of earnings rather than direct expenditure of capital. The cost of financing has been placed at the very conservative estimate of 5%. Going value is reckoned on the basis that over a period of four years an average of 25% of the property would be idle each year. 10% has been made as a minimum allowance for going value based on a total cost of reproduction new. Engineering cost is estimated at $80,000; legal and administrative expense during construction $65,000; interest upon money during con- [fol. 349] struction $175,000; taxes $25,000; organization $100,000; working capital $200,000; which includes meters,

transformers and stock which might, in most instances, be carried under the capital account; cost of financing $270,000; going concern value $540,000; all these estimates being based upon the personal experience of the witness and the experience and records of Stone and Webster.

In all probability the economics of the situation will require the abandonment of the plant at Martinsville within the course of the next few years. In order to permit an electric utility to continue to live and meet the requirements of growth in its territory, witness feels very strongly that a utility should have a return of at least 8%. Under present market conditions, of course, the return should be substantially higher because securities are a drug on the market, but year in and year out 8% is a fair return and would enable utilities to live and continue.

In the long run, service can be supplied to a town of the character of Martinsville cheaper on an interconnected large power system than it ever could be by a single local plant. Stone and Webster were employed to make this check upon the appraisal of Spooner and Merrill by the Wabash Valley Electric Company and without any connection or working arrangement whatever with Spooner and Merrill. On page (a) of Plaintiff's Exhibit 2-G prepared by Spooner and Merrill the total cost of reproduction of the Wabash Valley Electric system less depreciation is given at $5,556,091. The figure of Stone and Webster analagous to that is $5,828,507. From this sum the amount of $3,168,186 would be disbursed through the medium of general contractors. In this amount has been included the item of 6% as profit to the contractor on a cost plus basis. For a cost of financing Stone and Webster make an allowance of $270,000 while Spooner and Merrill have a figure of $182,185. The difference between these figures may be accounted for because Spooner and Merrill made no allowance for financing the common stock while Stone and Web-
[fol. 350] ster included that item.

Going value is difficult to ascertain and a major portion of it accrues by virtue of the fact that a new company of necessity has a large amount of property which must be built before sufficient load attaches to utilize it properly. This excessive building is prudent because it encourages growth and looks forward to an increased business. Every expanding company has to meet this item of going value

and in the instance of the present Wabash Valley Electric Company this expense was met out of normal dividend earnings since the company has shown a deficiency in this respect over the past six or seven years on the entire property.

The figure of $200,000 given by Stone and Webster for working capital is built up of about $40,000 cash; $160,000 for material and supplies. When Stone and Webster compared their group of unit costs with those of Spooner and Merrill it was found that Stone and Webster averaged about 5% higher for the entire group. Later it was found that Spooner and Merrill had included an allowance of 3% for general contingencies of which witness was not informed at the time the appraisal was prepared. Hence, the sum of Spooner and Merrill's structural cost plus their 3% allowance for contingencies would be approximately 2% less than Stone and Webster's estimate of structural costs in this particular appraisal. Stone and Webster's estimate of going value included nothing except costs of attaching and getting business on to the system. Other elements of going value may properly be considered, such as excellence of management. Plaintiff's Exhibit 8 is an appraisal of the electric distribution system in Martinsville.

All figures herein were arrived at in a manner corresponding to that used in Plaintiff's Exhibit 7. The totals given at the bottom of page 5 of Exhibit 8 represent the bare cost of reproduction of the Martinsville property new less depreciation, which is estimated at the sum of $85,953, from which is deducted approximately $1,500 on account of accrued depreciation. This depreciation was reached by determining that $1,500 would place the distribution sys- [fol. 351] tem in as good condition as if it were new.

Witness has prepared plaintiff's Exhibit No. 33 which is a study of defendants' Exhibit 106. In defendants' Exhibit 106 the maximum consumer demand of the system was taken as 22,518 kilowatts. In order to make it comparable with the kilowatt demand for Martinsville, this has been adjusted on the low side of the transformers at a 10% decrease, reaching the figure of 20,266 kilowatts. This net demand still includes the current demand upon the system by the Northern Indiana Power Company and the Attica Electric Company which, at precisely the same

hour as the entire system demand given, amounted to 8,098 kilowatts, which leaves a balance of 12,168 kilowatts. Thus the relation between the 678 kilowatt peak demand at Martinsville as used in Exhibit 106 and this net peak demand of 12,168 kilowatts amounts to 5.57%. This figure includes line loss which apparently was not taken into consideration in defendants' Exhibit 106. However, witness does not consider the percentage of 5.57 as being the proper method of adjusting the rates for any one unit. It fails to take into consideration the effect, of such a plan upon other individual communities, and it also fails to consider the fact that it is better to sell some power at a small profit rather than to lose the business entirely and receive no profits since the expenses of such a system are largely fixed.

Plaintiff's Exhibit 33 was admitted and read in evidence.

Assuming that witness knew the fair value of the power system property, also of the property within Martinsville, and that were the only information that was available to him, and he were requested to compute a rate base for the city of Martinsville, he would take the demands into consideration as he has done it with other power companies. Witness has known of the application of system peak demand against community peak demand as a method of allocating power system property to the community. Plaintiff's Exhibit 34, being a stipulation, referred to in the case in chief, was admitted and read in evidence. It was further agreed that defendants' Exhibit 140, being a copy of the contract of the Indiana Electric Corporation and the [fol. 352] Columbia Power plant, together with certain figures showing the peak demand of these companies, should be submitted to the master.

September 10, 1930.

CARL J. SITTINGER, witness for plaintiff, testified:

Witness resides at Winchester, Massachusetts and is an electrical and mechanical engineer being engaged in that work since 1910. Witness was graduated from the Massachusetts Institute of Technology and also took some special work there in civil engineering. Witness was employed by

John A. Stevens, consulting engineer in Lowell, Massachusetts, and since 1923 has been associated with Stone and Webster, an engineering corporation. Witness was project engineer in charge of construction of Montaup Electric Company which included a large power station and transmission lines and substations located partly in Massachusetts and partly in Rhode Island. Witness has made estimates of numerous construction projects amounting to more than $50,000,000. Witness has made appraisals of property for bankers and for rate cases.

Witness was employed in June and July of this year in checking the inventory of Spooner and Merrill. The Spooner and Merrill inventory was checked in the field as to various items which represent a large part of the total property, although the matter was not gone into in the same amount of detail as did the original appraising company. In this way about half the entire property was isolated in money value and it was assumed that the other half would vary in the same proportion as the half picked out at random. The practice of Stone & Webster is to have a specialist in each particular field, such as electrical division, structural division, hydraulic division, mechanical division, etc., work on the individual unit costs involved. Local labor conditions and quantities of property involved are all taken into consideration. It was found that Spooner and Merrill's estimates were about 5% under those of Stone and Webster the differences largely being attributed to labor estimates. Such estimates are based upon actual [fol. 353] cost of construction work, as experienced by Stone and Webster.

If the contingent cost element of $160,000 used by Stone and Webster was included so as to bring their estimate upon the same basis as that of Spooner and Merrill, then the Stone and Webster estimate of cost of reproduction would be $3,328,000 as compared to the Spooner and Merrill estimate of $3,168,000. Witness estimates that to put the entire property in 100% operating condition it would take the difference between $3,168,000 and $3,061,000. Stone and Webster's estimate of the structural cost of the Martinsville property, as shown by Exhibit 8, is $85,953 plus $4,200, while Spooner and Merrill's figure is $84,418.

On a 30′ 6″ pole witness estimates the unit cost as follows: Purchase price $7.85 delivered; unloading and stor-

age $.51; framing and gaining $.17; unloading and distributing to job $2.85; digging and setting poles $2.85; which totals $14.23 to which is added 12.2% as a proper share of the overhead, which brings the total cost of the pole up to $16.02. This estimate is about $3.00 higher than that of Spooner and Merrill on the same pole.

On other items Stone and Webster may be slightly lower than Spooner and Merrill owing to reduced purchase prices obtainable by large purchasing power. In witness' opinion, $5,935,138 represents the cost of reproduction of the Wabash Valley Electric Company property and to put that property in 100% operating condition would necessitate an expenditure of the difference between this figure and the sum of $5,828,000. The cost of reproduction new of the present Martinsville distribution system would be $121,353, and to put the present property in 100% operating condition would necessitate expenditure of the difference between that figure and $119,818. The management and condition of the Wabash Valley Electric Company system indicates that it is well cared for and ably managed. Plaintiff's Exhibits 7 and 8 were admitted and read in evidence.

Witness used unit costs in the Stone and Webster ap- [fol. 354] praisal which were made up by one of their men in their office who never saw plaintiff's property and who never came on the grounds.

In each instance Stone and Webster have figured the cost of reproduction of the property new and have therefrom deducted the sum which, in their opinion, would be necessary to place the present property in 100% operating condition, which amounts to the cost of reproduction new less present depreciation. As to automobiles listed as part of the equipment, witness has not depreciated any individual car but has simply deducted a straight percentage on all such equipment which, in the experience of witness, is sufficient to cover general depreciation. In the class of equipment covering motor vehicles a 25% item is allowed which, in witness' experience and in checks with automobile dealers, has been found to be the average cost of putting quantities of such equipment in 100% operating condition.

No particular portion of the land at the Martinsville plant could be set aside specifically as Martinsville local system only. A certain percentage might, however, be

ascribed for local purposes, and the balance attributed to the general power system. However, the switchboard located on the land is purely local Martinsville property and also the panels to which the distribution feeders are connected. The substation that connects to the 66,000 volt line from Lenore station is located out of doors and not in the generating plant at Martinsville. This substation is a part of the local distribution line.

Where two separate systems are interconnected and built and operated jointly, there is a saving in the overhead of each owing to the greater purchasing power of the two properties and general lowering of fixed charges. From an investment standpoint every element of property in the Wabash Valley Electric system is useful. For instance, the substation at Bainbridge is used for handling power to Roachdale and Groveland and is used for delivering power to the local Bainbridge system. In an interconnected sys- [fol. 355] tem every substation has its effect upon the load factor and the cost of power on the whole system. A power station built in excess of the required capacity will probably, for the time being, increase the total cost of power to the reservoir or "power pool" of the entire system, but as the load increases the cost will finally become lower. A power customer whose demand is high for a daylight load can be served at a much lower price than a residence consumer.

Witness, as an engineer, to determine the property used and useful in distributing electrical energy at the city of Martinsville would take the one cent interconnection rate and add to that the cost of distribution locally and the cost of distribution of the entire system and make an equitable allocation, thus determining the local rate. Without the affiliated system the one cent rate might not be available. It might be higher. In computing the final rate it would also be necessary to consider the fixed charges on the entire Wabash Valley Electric Company system. The net result of any such rate determination must be that the power consumer whose demand is high and whose demand comes when the system peak is low must be charged at a lower rate than the residence consumer.

It is almost impossible to allocate a particular portion of the whole system to the gateway price of any particular city. For instance, if the line came from the Columbia plant to

Martinsville and then up to Lenore, it would necessitate a 132,000 volt station at Martinsville serving Martinsville only, and it would be apparently unjust to charge all of that investment to Martinsville alone. Any such allocation may at one time be just and equitable and in the near future a great hardship, because in any well designed system there is a two way supply and if the direction of the current is changed it might change the whole question of allocation. Under such a system of allocation, it might be equitable to establish the same gateway price to all different towns and power consumers. The same gateway cost to all cities and towns and all power customers connected to this system would be bound to prevail if a gateway price is to be based on [fol. 356] the system as a whole. I should think that within the Wabash Valley property the same gateway price to all the gateways of the different towns and to each and all of the power customers, like coal mines and gravel pits, would be equitable.

A 66,000 volt substation will cost slightly more than twice as much as a 33,000 volt substation and a 132,000 volt substation cost slightly more than twice a 66,000 volt substation. There are no moving parts in a substation other than the circuit breaker. Thus the question of wear and tear is not important.

Witness has prepared three plans for the construction of an independent steam plant at Martinsville to supply the hibit 9. All prices of current are estimated delivered to the switchboard before passing out into the distribution lines.

Plan 1 contemplates the addition of a 750 kilowatt turbine to the present plant.

Plan 2 contemplates replacing two boilers and the addition of a turbine.

Plan 3 contemplates an entirely new plant and relocation along the White River. Plaintiff's Exhibit 9 admitted and read in evidence. Although plan 3 might show a slightly higher cost per kilowatt hour for the first year, over a period Martinsville load, which are indicated by plaintiff's Ex- of time it would justify the additional expenditure because of ultimate reduction in costs. The rate of return is figured in each instance at 8%.

Witness has prepared a study of the cost of installing a Diesel electric generating plant in Martinsville which is shown in plaintiff's Exhibit 25. Witness has had actual

contact with Diesel plant operations at the Clifton and Morenci plants of the Phelps-Dodge Company in Arizona and the Miami Copper Company at Globe, Arizona, and has also had contact, during a week's test of a plant at Amite, Louisiana. He has also had direct contacts with the operating records of various other plants.

[fol. 357] Under plan 1 witness has an estimate of installation submitted directly by the McIntosh-Seymour Company of $141,000. Under this first plan the operating cost is 1.48 cents per kilowatt hour. Under the second plan which contemplates the installation of additional refinements in machinery the cost is given as 1.27 cents per kilowatt hour.

These are the minimum costs and would require a crew of seven men, a chief engineer, an assistant operating one shift and on the other two shifts an assistant engineer with a labor assistant, making six men for the regular crew, to which has been added a utility man to relieve each man in turn one day each week so that each man works six days a week eight hours a day. 5% depreciation is allowed predicated upon the life of a Diesel engine, which is ten to twelve years, and the life expectancy of building and other equipment in accordance with the usual steam plant depreciation. 2% has been allowed for taxes and interest.

Plaintiff's Exhibit 25 admitted and read in evidence.

Ervin J. Kowalke, witness for plaintiff, testified:

Witness resides in Indianapolis, Indiana, and, since June, 1923, has been employed by the Wabash Valley Electric Company and affiliated companies as rate statistician. Witness has made a study of the records of the Wabash Valley Electric Company and finds that if, in the year 1928, the rates ordered by the Commission had been in effect in Martinsville, the revenue based upon the business actually done in 1928 would have been reduced $14,566.33. This figure was reached by computation based upon each individual bill rendered to customer.

In December of 1928 a change of rate was put into effect in Greencastle and Clinton. This changed rate, if applied to the revenues in Clinton and Greencastle, would have resulted in approximately $3,900 reduction for each of the two towns for the month of December. If the adjusted rate was figured

[fol. 358] on the entire year of 1928 for these towns, the reduction would have been $32,001.37. Plaintiff's Exhibit 10 is a summarized result of applying the rates ordered by the Public Service Commission for Martinsville to the customers' billings over the period from May 31, 1929 to May 31, 1930 of the towns of Martinsville, Clinton, Greencastle, Jasonville and Sullivan. This exhibit was computed upon the individual bills of each customer for each month of the year on the rates in each town ordered by the commission to be established in Martinsville.

In so far as population is concerned, all of these towns fall into the same class. The first column of Exhibit 10 assumes that all rates now effective shall remain effective and that the rates established by the commission are optional. For certain customers it would be cheaper to retain the old rate than to follow the commission rate.

Plaintiff's Exhibit 10 admitted and read in evidence.

The rates put in effect in December, 1928, in Clinton and Greencastle were voluntary rate schedules filed by the company and were not the result of any rate hearing. Prior to December, 1928, the rates at Clinton and Greencastle were higher than the corresponding rates in Martinsville and the change was made for the purpose of standardizing rates in towns of practically the same size. Greencastle and Martinsville are considered as of the same general classification. The Greencastle and Clinton rates were approved by the Public Service Commission without any hearing.

September 11, 1930.

B. H. Lybrook, witness for plaintiff, testified:

Witness resides at Indianapolis, Indiana; was graduated from Purdue University in engineering and was thereupon employed in various subordinate positions in the operation and construction of power plants, substations, transmission lines, and general power equipment for Allis-Chalmers Company; was employed in the electrical power department of the United States Steel Corporation at Gary; in 1921 was employed in various capacities with Northern Indiana [fol. 359] Power Company, and since 1925 has been chief

operating engineer for the Wabash Valley Electric Company and associated companies.

Witness has figured the line loss for the year ending May 31, 1930 on electricity delivered to the Northern Indiana Power Company by the Wabash Valley Electric Company and finds the line loss to be approximately 2.1%. For the year ending May 31, 1930, witness finds the line and transmission loss on deliveries by the Wabash Valley Electric Company to the Attica Electric Company to be 8¾%. For the same period the line and transmission loss on deliveries by the Wabash Valley Electric Company to cities and towns located along the Clinton-Lafayette transmission line is found to be 12.4%. The line and transmission losses for the remainder of the Wabash Valley Electric system for the same year were found to be 16.1%.

These percentage losses were arrived at in the case of the Northern Indiana Power Company by taking the amount of energy transmitted to them by the Wabash Valley Electric Company for the period and arriving at an average load in kilowatts. The load current was then applied to the total resistance of the line to obtain the losses. The line loss for the Attica Company and for the Indiana Power Company is approximately the same but the Attica Company is subject to a transformation loss which does not apply to the Northern Indiana Power Company. For the year ending May 31, 1930 the Northern Indiana Power Company took 29,136,300 kilowatt hours. For the same period the Attica Company obtained 6,204,652 kilowatt hours.

L. B. Schiesz, witness for plaintiff, testified:

Witness resides at Indianapolis, and is vice president of the Wabash Valley Electric Company and certain other subsidiaries of the Central Indiana Power Company; his principal duty is to take charge of operating records. Witness has been engaged in accounting in connection with utility operations for the past 17 or 18 years. Witness has made up a statement of energy received from the Northern Indiana Power Company at Lafayette, Indiana, by the Wabash [fol. 360] Valley Electric Company for the year ending May 31, 1930, which is evidenced by plaintiff's Exhibit 15. The

total kilowatt hours received during that year amount to 1,585,400.

Plaintiff's Exhibit 16 is a statement of the energy generated and purchased by plants and companies during the year ending December 31, 1928, and showing the amounts of current purchased by the Wabash Valley from the different generating plants. Plaintiff's Exhibit 17 gives similar data for the year ending May 31, 1930. Plaintiff's Exhibit 15 shows a delivery of 1,585,400 kilowatt hours to the Wabash Valley Electric Company by the Northern Indiana Power Company during the year ending May 31, 1930, but Exhibit 17 showing energy purchased during the same period does not show the Northern Indiana Power Company as one from whom purchases have been made for the reason that the sales by the Wabash Valley Electric Company to the Northern Indiana Power Company exceeded the deliveries and, since the one cent rate prevails in each instance, the matter was handled by book entry. Therefore, the actual sales of the Wabash Valley Electric Company to the Northern Indiana Power Company are approximately a million and a half greater than indicated by Exhibit 17.

Plaintiff's Exhibit 18 is a record of the common stock dividends paid on outstanding common stock of the Wabash Valley Electric Company over a seven year period from June 30, 1923 to June 30, 1930. Plaintiff's Exhibit 19 is a comparison of construction expenditures subsequent to June 26, 1923, with the proceeds from securities authorized for construction expenditures up to April 30, 1930. $3,255,-924.22 represents the expenditures for additions and betterments or plant property charges subsequent to June 26, 1923. These are net expenditures after deducting the value of the property retired. The sum of $2,156,320 represents the actual cash which the company has realized on the sale of securities which have been issued in conformance with the commission orders listed on page 3 of Exhibit 19. In no case were any securities sold at a price less than the authorized discount and in one or two instances were sold a little higher than the discount which the commission au- [fol. 361] thorized. $889,200 par value of authorized bonds, preferred stock and common stock, have not been issued. The $1,094,000 which appears on page 1 of plaintiff's Ex-

hibit 19 as unfunded expenditures, was largely advanced by the Central Indiana Power Company on open account.

Up to April 30, 1930, there has been an excess of construction expenditures over the amount realized from the sale of securities, plus the par value of authorized but undisposed of securities in the sum of $272,859. Page 1, plaintiff's Exhibit 19, shows the book value of the Wabash Valley Electric Company property as carried on the books of the company to be $5,235,900.94, of which $4,940,686.94 is electric utility property. The book value figure does not include any sum for working cash or material or supplies on hand. $256,000 par value of common stock is held as treasury stock and $145,600, par value of common stock has never been issued. No dividend has ever been paid on either of these groups of stock. No common stock or any other security of the Wabash Valley Electric Company has been sold or issued without payment in the form of cash or property at a valuation fixed by the commission. The Central Indiana Power Company has never charged the Wabash Valley Electric Company for interest on advances made to it. Since October 31, 1925 only a total of 6% in dividends has been paid upon the common stock of the Wabash Valley Electric Company. This occurred during the year 1927 when a 6% dividend was paid.

Plaintiff's Exhibits 19-A to 19-L are certified copies of orders of the Public Service Commission of Indiana as referred to in column 2 of page 3 of Exhibit 19. Plaintiff's Exhibit 20 is a summary of gross income before provision for depreciation, meaning the difference between company's gross revenues and operating expenses (exclusive of taxes and depreciation) and the percentage ratio of the gross income plant property, franchises and working capital, by periods from May 31, 1923 to June 30, 1930. $303,000 is estimated as the working capital requirement and includes working cash capital, material and supplies [fol. 362] and any franchises in reckoning book value. For the month of June, 1923 11.19% of book value of the property was available to pay depreciation return upon investment and other items as indicated, and for the period of six months ending June 30, 1930, 5.82% of the book value was available for depreciation and return upon the money invested. Plaintiff's Exhibit 21 is based upon a study of

the company's business for the year ending December 31, 1928, and shows net additions and betterments from December 1, 1927, the time of the Spooner and Merrill appraisal up to December 31, 1928. During this period additions and betterments at Martinsville, considering only local property, amounted to $24,459.38. The fifth item on page 11, Plaintiff's Exhibit 21, shows a figure of $34,829.99 which covers what is termed the Martinsville district, which includes certain property in the rural territory. During the year 1928 a monthly average of materials and supplies at cost pice amounted to $183,862.83. For power delivered to the gateways of the cities served by the Wabash Valley Electric Company it is necessary to generate or buy 38,000,-214 kilowatt hours in order to deliver the necessary 34,096,-000 kilowatt hours. For the deliveries to Northern Indiana Power Company and Attica Electric Company, it is necessary to buy 42,238,000 kilowatt hours in order to deliver 37,687,000 kilowatt hours as required. All of these figures are reached by applying the average system efficiency of 10.7% to both groups. If the figures of 2.1% as loss on the Northern Indiana Power Company deliveries, and 8.75% on the Attica deliveries, were applied it would lessen the figure as to the quantity of current purchased for delivery to the Northern Indiana Power Company and Attica Company and increase the amount of current necessary to be purchased to supply the local distribution systems of the Wabash Valley Electric Company because the figure of eighty million four hundred and some odd thousand kilowatt hours is the total which was generated and purchased by the Wabash Valley Electric Company during the year ending December 31, 1928.

During this year 2,511,125 kilowatt hours were metered to the city of Martinsville on the low side of the substation [fol. 363] transformer. On the basis of the system average it was necessary to purchase approximately 10% more than this amount in order to furnish the current to Martinsville. Of the amount of 2,511,125 kilowatt hours metered to Martinsville it was possible to deliver 2,148,179 kilowatt hours to consumers within the town of Martinsville, which represents a local distribution efficiency of 85.55%. 15% loss of local distribution represents an efficient system and is not excessive. On a book value figure of $5,026,437 based

on Spooner and Merrill's appraisal of September 1, 1927, the company earned a return of 5.54% for the year which ended December 31, 1928 on the depreciated value of the property. Included in the earnings of the company is the current which was purchased from the Dresser plant at one cent per kilowatt hour and delivered to the Northern Indiana Power Company and the Attica Company at one and a quarter cents. This condition continued up to December 1, 1929, at which time the interchange price on all kilowatt hours became one cent.

The prices included in Exhibit 21 are reckoned on the September 1, 1927 basis. By eliminating deliveries to the Northern Indiana Power Company and the Attica Company and giving the other business of the company the benefit of the differential of one quarter cent between buying and selling price, a gateway price on the low side of the transformers of .024996 cents per kilowatt hour is reached. For the year ending December 31, 1928 the item of $95,105.47 represents the gross revenue derived from the electric utility business in Martinsville. During this period the total operating expense and taxes were $91,783.89 representing power cost on 2,511,125 kilowatt hours delivered on the low side of the transformer at a rate of approximately 2½¢ and various other items of distribution, utilization, comercial uncollectible accounts, new business, all being part of the local expense. An item of $2,604 is indicated for taxes, but actual last year's tax payment was somewhere between $11,000 and $12,000. To the $91,783.89 item for operating expense has been added an allowance of 4% depreciation, giving a total operating expense, tax [fol. 364] and depreciation item of $96,680.79, resulting in a deficit during that year of $1,575.32.

If the rate established by the commission (as testified to by Mr. Kowalke) had been applied the result would have been a deficit for that year of $16,141.65. Assuming that the Clinton and Greencastle rates filed in December, 1928, had been in effect a full year and that the rates ordered by the commission for Martinsville had been in effect for Martinsville for that year the result would have been a decrease in the net earnings during that period of $46,567.70. Adjusting this on the net income during the period results in finding that the company would have earned under these

conditions $232,266.51, which amounts to only 4.62% return on an investment of $5,026,000.

Plaintiff's Exhibit 22 represents a set-up similar to the one just testified to for the year ending December 31, 1928, but Exhibit 22 is applied to the year ended May 31, 1930. For deliveries made to the Northern Indiana Power Company a line loss of 2.1% has been applied. A line loss of 8.75% has been applied to the Attica deliveries. These percentages have been extended so as to show the number of kilowatt hours which must be purchased in order to deliver the 35,340,952 kilowatt hours to those companies. To this extent Exhibit 22 is more accurate than the corresponding page of Exhibit 21. For the kilowatt hours delivered to cities and towns located on the Clinton-Lafayette line a percentage of 12.4% as testified to by Mr. Lybrook, has been applied to compute the amount of current necessary to purchase in order to supply the necessary 3,780,800 kilowatt hours to the various town gateways. For the remainder of the Wabash Valley system it is necessary to furnish 37,252,-162 kilowatt hours on the low side of the gateway transformers. To this amount is applied the line loss of 16.135% as testified to by Mr. Lybrook. The rates eestablished by the Wabash Valley Electric Company for Martinsville prior to the time the commission established a rate, gave a return of 3.9% on a property value of $135,402. On applying the [fol. 365] estimated reduction in the rates ordered by the commission a deficit is shown of $10,621.89.

Plaintiff's Exhibit 15, Exhibit 16, Exhibit 17, Exhibit 18, Exhibit 19, Exhibits 19-A to 19-L, Exhibit 20, Exhibit 21, and Exhibit 22 are admitted and read in evidence.

Plaintiff company considers the rate put in effect in Martinsville on July 1, 1927, a fair rate. Exhibit 21 shows a deficit in 1928 of $1,575.32 at Martinsville under that voluntary rate.

The gateway price of .024996 cents is the average rate necessary to pay operating expenses and interest charges with 8% return and should be used as the average cost for current delivered to all points on the Wabash Valley Electric system, except the Attica Company and the Northern Indiana Power Company. Witness used Spooner and Merrill's appraisal in all of his exhibits. Plaintiff's Exhibits

21 and 22 for the purpose of arriving at that gateway price excluded Attica and the Northern Indiana Power Company because these companies should be given a different gateway price for wholesale power.

Central Indiana Power Company owns the common stock of Wabash Valley Electric Company and of all the other subsidiary companies, namely, Indiana Electric Corporation, Northern Indiana Power Company, Attica Electric Company and a group of small companies. Plaintiff was a subsidiary of Central Indiana Power Company in 1923 and after, during the time when the Public Service Commission orders authorizing securities were issued. Central Indiana Power Company owns every dollar's worth of securities which plaintiff has issued and outstanding, whether in bonds, preferred or common stock. Central Indiana Power Company sells its own collateral bonds and preferred stock, predicated on the securities of all of its subsidiaries, to the public. Plaintiff's securities are taken directly by Central Indiana Power Company without an intervening agency, and it still owns them. There was a specific group of securities authorized to acquire property of the Martinsville Gas and Electric Company along with the Spencer Light Power Heat and Water Company, Gosport Company, etc., [fol. 366] but the commission did not fix a specific unit of value on the Martinsville property at that time.

The preferred and common stock of all subsidiary companies is owned by Central Indiana Power Company, and was taken over without any expense to the several subsidiaries, except fees paid to the Public Service Commission. Central Indiana Power Company is a holding company but its charter has been amended empowering it to operate as a public utility, but it never did operate.

Out of a total of 85,217,894 kilowatt hours purchased by the Wabash Valley Electric Company there were 77,945 kilowatt hours generated by the local plants.

If dividends were paid on plaintiff's stock during any of the years shown in Exhibit 18, they would have been paid to Central Indiana Power Company as owner of the stock. Central Indiana Power Company advances money to plaintiff from time to time to finance its capital expenditures on its properties, which is paid back as it has the money to pay back.

The cost of getting and attaching customers has always been charged to operating expenses on plaintiff's books. All expenses incurred in connection with the New Business Department are charged to operating expenses. No part of these charges is transferred to capital account. No portion of new business expense has been charged to capital account since June, 1923, when plaintiff took the property over. On page 2 of Exhibit 21 an item entitled "New Business" represents a charge of $3,500.31 as an operating expense. This is the expense incurred within the corporate limits of Martinsville for the year ending December 31, 1928, in canvassing and soliciting power contracts, commercial lighting contracts and residence service customers. Since 1923 whatever cost has been incurred in procuring and attracting new business has never been reflected in the capital account as kept by the Wabash Valley Electric Company. In arriving at the gateway price in Exhibits 21 and 22 no item for legal or engineering expense connected with rate hearing was included. Exhibit 21 includes an [fol. 367] item for rate case expense, but witness does not have the figure. The item of "General and Miscellaneous Expense" at page 1-B of Exhibit 22 includes $6,235.98 charged by plaintiff to Martinsville for the year ending May 31, 1930, under a ten year amortization of the total expenses incident to this rate inquiry. It is planned by plaintiff to charge to Martinsville about $60,000 of rate case expenses incurred to May 31, 1930. The total amount of rate case expenses has not yet been determined. As investigation charges, attorneys' fees, engineering fees and other things come in they are charged to this account. All expenses, legal, engineering and commission charges in connection with the merger of the Central Indiana Power Company and the T. H. I. & E. Traction Company were paid for and carried on the books of the Central Indiana Power Company and no part of them was charged to plaintiff. The subsidiaries were never charged any part of the merger hearing cost. The rate case expenses up to May 31, 1930 are approximately $60,000. A portion of the item chargeable to new business is in reality devoted to the current replacement of lost customers so, in many respects, it is an expense necessary in order to keep up the present volume of business. Witness is the Comptroller of Central Indiana Power Company. The Central Indiana Power

Company purchased the Wabash Valley securities but in order to do so it must sell its own securities and thereby incurs expense which makes it necessary for the Central Indiana Power Company to purchase Wabash Valley Electric securities at a reduced price in order to meet the expense. The sale of 77,500 shares of Central Indiana Power Company 7% preferred stock as of May 31, 1927 incurred an average selling expense of $6.62 per share. The expense of selling bonds of the Central Indiana Power Company runs from four to six points per share, depending on market conditions.

None of the cost of making the September 1, 1927 inventory and appraisal by Spooner and Merrill, which is the basis of the appraisals in this case, was charged against the [fol. 368] Wabash Valley Electric Company. It was put into the cost of the merger hearing by the Central Indiana Power Company and the T. H. I. & E. The Commission fee of $1,005 charged against the Wabash Valley Electric Company is included in the $60,000 item of expense for this rate case.

In addtion to the $6.62 selling expense per share of the Central Indiana Power Company's preferred stock there were discounts suffered ranging from seven to twenty points per share which were in addition to the $6.62 expense.

Witness testified that electrical energy was delivered by the Wabash Valley Electric Company to the Northern Indiana Power Company in monthly periods beginning with June, 1929, as follows:

June	2,031,200	Kw. H.
July	3,080,900	"
August	4,150,300	"
September	4,304,000	"
October	4,437,100	"
November	3,142,300	"
December	1,602,500	"
January, 1930	753,100	"
February	451,500	"
March	1,510,200	"
April	1,125,200	"
May	2,548,000	"

all of which totals 29,136,300 kilowatt hours. The one and a quarter cent kilowatt hour delivery charge for current

delivered to the Northern Indiana Power Company was lowered to one cent on December 1, 1929.

Witness has examined defendants' Exhibits 114, 115, 116, 117, 118, 119, 120, 121, 122 and 123 and finds that certain items do not reflect the true cost. On page 19 of Exhibit 114 fuel consumption during the year is shown to cost $31,142.97. This sum should have been carried to page 13 of the report, line 2, but has been entered there at $29,392.56. The total of steam generating apportioned cost is shown to be $45,330.98. This figure should have been carried to page 9 of the report on line 2, but instead the figure $29,392.56 has been used. The item of $56,180.73 given as the total cost of steam power generation, apparently does not include labor costs, costs of water, and an item of miscellaneous expenses, and $5,500 for maintenance [fol. 369] appearing on page 13 so that a correct unit report is not presented. Exhibit 115 on page 19, line 19, shows a fuel cost of $21,917.86. Referring back to page 13, line 2, the cost of fuel is shown as $26,506. Exhibit 116 on page 19 shows fuel cost to be $13,083.97 and on page 13, line 2, fuel cost is shown to be $14,473.94. Witness has investigated the additions to the local Martinsville distribution system from November 30, 1927 to December 31, 1929 and found that the net cost of additions, less retirements, amounted to approximately $24,000.

Similarly, net additions from December 31, 1929 to April 30, 1930, amounted to $1,500. Witness has prepared plaintiff's Exhibit 28, which allocates deliveries over the Clinton-Lafayette line to the Northern Indiana Power Company and the Attica Company and to the other Wabash Valley Electric Company customers. On page 14 of this exhibit all items of property are appraised and allocated to transmission lines and substation property. These items are set forth in the cost of reproduction new less depreciation under the valuation as set forth in the appraisal of Spooner and Merrill, to which has been added as going concern value 15% of the reproduction cost new figure and 3.8% as cost of financing. Deliveries on the Clinton-Lafayette line have been ascertained and it is found that 89.44% of the power is delivered to the Northern Indiana and Attica services and 10.56% to the local customers of the Wabash Valley. These percentages have been applied to the values as set forth and the property allocated

between the Northern Indiana Power Company and Attica Electric Company and the various local users.

Witness has not considered any of the benefits which accrue to the Wabash Valley Electric Company by virtue of its interconnection at this point, but has simply given a mathematical allocation. Taxes have been allocated on the same percentages. Producing energy to supply the Northern Indiana and Attica companies at a one cent rate results in a total cost of $365,609.05, which added to the allocated portion of transmission line and substation oper- [fol. 370] ating expense gives a total cost of $393,855.94, which is chargeable to the Northern Indiana-Attica service.

On page 11 of the exhibit all revenue which the company received from the actual delivery of energy to the Attica and Northern companies has been eliminated. Thus on the property as a whole valued at $4,650,112, a return of 4.91% is reached. Then on page 6 of this exhibit on the basis of the elimination of the Clinton-Lafayette line and other equipment a gateway cost is estimated to which a net operating expense, including taxes for the remainder of the power system property is added and 4% for depreciation and 8% for return arriving at a total energy cost at the gateway of the Wabash Valley Electric Company's cities and towns of $936,546.36. Dividing that by the kilowatt hours delivered on the low side of the transformers a gateway price of .022897 cents per kilowatt hour is reached.

On pages 1-b and 1-a the costs allocated to Martinsville under the rates ordered by the commission in order 8894 leaves a deficit of $7,420.80 for the service rendered in Martinsville locally. This deduction is estimated as applied to the actual consumption in the year ended May 31, 1930.

Plaintiff's exhibit 28 admitted and read in evidence.

Plaintiff's exhibit 29 is a correction and adjustment on apportionment of working cash and material and supplies as developed from defendants' Exhibit 102.

Plaintiff's Exhibit 29 admitted and read in evidence.

In witness' opinion the only way in which a company can operate and do business is to have cash on hand sufficient to meet all the bills of the company for thirty days, since the

customers are not billed until they have used current for thirty days and it would be necessary to pay the company from whom the energy was purchased at some time between the first and tenth of the succeeding month for all the current consumed during the preceding month.

Customers are usually about 15% delinquent in the payment of their bills. The payment of power bills must be financed by working cash capital on the same theory as if [fol. 371] the company were generating its own steam, and paying for coal and labor. The peak demand of the Northern Indiana Power Company on the Wabash Valley Electric system occurred on September 30, 1929 at 8:00 P. M. and amounted to 12,800 kilowatts. The Attica Electric Company peak demand occurred on July 31, 1929 at 9:00 A. M. and amounted to 1,456 kilowatts. Plaintiff's Exhibit 30 is prepared for the purpose of showing the unit costs on the kilowatt hours for this service by using the maximum demand of the entire Wabash Valley Electric system and developing a percentage by using the maximum demand of the separate customers, which is the same process used by the commission in regard to Martinsville. 10% has been allowed for line and transformer loss. By computation the Northern Indiana Electric Company is allocated $1,604,222 on a return base of $1,809,939. Attica on a depreciated basis of $183,049 is given a return base of $206,-522. Thus by using defendants' theory of apportioning the peak demand of the individual consumer to the peak demand of the system it is found that a unit cost of 1.95 cents per kilowatt hour should be charged Northern Indiana Power Company, which is higher on this basis than the rate for the city of Martinsville. Similarly, the cost per kilowatt hour for the Attica Electric Company is found to be 1.54 cents.

Plaintiff's Exhibit 30 was admitted and read in evidence.

Plaintiff's Exhibit 31 is a correction and adjustment of defendants' Exhibit 130 so as to correspond with the facts as to the contract for power between the Indiana Electric Corporation and the Columbia Power Company. Defendants' Exhibit 130 prepared by Mr. Husselman is predicated upon the idea that additional energy can be purchased at .0023 cents per kilowatt hour. In fact, the increased de-

mand upon the Columbia power plant of 2,650 kilowatts would involve an increase of payments for the life of the contract involving an annual payment of $74,412. This annual payment would have to be made whether any of the current were used or not, whereas, the current can be produced in the local plants eliminating only the return upon the investment at a cost of $39,633, resulting in a [fol. 372] saving of $34,779 by operation of the local generating plants. Figuring back on this basis with 8% capitalization these plants have an economic value of $434,738.

Plaintiff's Exhibit 31 admitted and read in evidence.

Plaintiff's Exhibit 32 is a correction and adjustment of defendants' Exhibit 106. In applying the two demands which were used by Mr. Abbett in Exhibit 106 witness finds that the percentages were 2.26 on average demand and 3.35 on peak demand. The exhibit adjusts defendants' figures as given in Exhibit 106 on the basis of these percentages and is made by way of correction. Any increase in power consumption over the lines of the Wabash Valley Electric Company means an increase in expense because the Wabash Valley Electric Company has to pay a fixed price for each kilowatt hour and has to assume line loss and the Wabash Valley is also forced to make additional capital expenditures as the load increases in various cities.

Defendants' Exhibit 139 being the contract between the Indiana Electric Corporation and the Columbia Power Company was admitted and read in evidence.

The current generated by the local plants of the Wabash Valley Electric Company is sent in to the general power transmission loop and is impossible to trace and is valuable in so far as it adjusts the peak demand between the Indiana Electric Corporation and the Columbia Power Company thus making available the one cent rate. These local plants were acquired in the process of development and were not built for the purpose of standby service originally.

September 12, 1930.

Hugh W. Abbett, witness for defendants, testified:

Witness resides at Oaklandon, Indiana. Witness was graduated from Purdue University, Lafayette, Indiana, in

June, 1916, and is a licensed engineer in the state of Indiana and is now employed by the engineering department of the Public Service Commission of Indiana having worked in that capacity since September, 1919. During [fol. 373] the time witness has been connected with the Public Service Commission he has been connected with about 100 appraisals of public utility properties. Witness' connection with the Wabash Valley Electric Company properties began about 1920 or 1921. Witness helped appraise the property at the time the Wabash Valley Electric Company was purchased by its present owners in 1923 or 1924. Witness appraised the local property at Martinsville for the rate hearing before the commission which is now involved and also appraised or had charge of the appraisal of the Wabash Valley properties in connection with the merger hearing before the commission in 1928 and 1929. At the time of the merger hearing witness had charge of the appraisals of all of the Central Indiana Power Group as well as the T. H. I. & E. system.

Defendants' Exhibit 100 is an inventory and appraisal of the local distribution property in Martinsville as of May 1, 1930. This inventory was prepared in connection with the engineers of Spooner and Merrill, Incorporated, resulting in practically an agreed inventory. Plaintiff's Exhibit 2-H being Spooner and Merrill's inventory of the local Martinsville property is essentially the same as defendants' Exhibit 100, except that defendants' Exhibit 100 contains certain property which Spooner and Merrill allocated to the Morgantown transmission line, but which witness has included as a part of the Martinsville local property. Defendants' Exhibit 100 is built up upon unit costs.

The items listed in the inventory were noted, quotations obtained for the various materials, freight allowance made, and an allowance of approximately 3% added to take care of storage and purchasing. Labor prices were reckoned at forty cents an hour for common labor; sixty-five cents an hour for linemen; fifty cents an hour for truck drivers; fifty cents an hour for meter setters; and sixty-five cents an hour for foremen and subforemen. On copper wire, prices were obtained as of May 1, reckoned in carload lots. Prices on transformers and meters were based upon experience and cost as shown by the books of the Wabash

Valley Electric Company. It was assumed that there was [fol. 374] no electric property in any part of the Wabash Valley system and the Martinsville local plant was reproduced along with the rest of the Wabash Valley properties and that the distribution system and transmission system would be built under company supervision. Copper wire and poles are the biggest cost items of property with copper wire probably costing a little more than poles. Meters would probably be next in cost.

Witness personally inspected most of the property inventoried in Exhibit 100 to note depreciation, and had the records of the other engineers who inspected the remainder. Witness observed the condition of the property for the purpose of determining what should be deducted for depreciation from his cost new figure.

The unit cost on a 30′ 6″ northern cedar pole is reckoned as follows: Price of pole f. o. b. $6.50; Freight $1.33; 3% allowance for purchase and storage which makes the cost of the pole delivered at Martinsville $8.06. For unloading the pole a labor item of .129 of a dollar has been allowed. The cost of roofing the pole is estimated at 16¢. The cost of hauling to the place of installation is figured at .201 of a dollar. To dig the hole in which the pole is set is estimated at $1.838; for erecting the pole and tamping the dirt a price of $1.893 is given. An additional charge of .048 of a dollar for hauling the pole one mile is added, which gives a total unit cost of $12.33. This unit price for the pole has included, as a part of the labor item, about 4% for insurance and 3% for tool wear. The item of gaining the pole for crossarms has been included in the unit price of the crossarms rather than the pole itself.

The labor set-ups involved are those which, in the experience of the engineering department of the commission, have been found a practical method of doing this particular kind of work. The individual performance of doing each piece of work is not necessarily considered but the splitting up of the work in this method and adding the totals is comparable to the total labor rates or amount of labor which the companies experience in similar intervals. For in- [fol. 375] stance, on the item of roofing the pole the crew for that operation consists of one lineman at sixty-five cents an hour with insurance at the rate of 4% and tool wear at the rate of 3% added, making a figure of seventy

cents per hour. On a 30' pole an allowance of .233 man hours is reckoned which, multiplied by the crew rate, gives .163 of a dollar. The item of loading and distributing is estimated with a labor crew of one subforeman at sixty-five cents an hour; two ground men at forty cents an hour; one truck driver at fifty cents an hour; insurance at 4%; tool wear at 3%; one two ton truck at $1.00 per hour and one trailer at $1.50 after being multiplied and divided back by the man hours gives .813 cents per man hour.

After the unit cost is reached there is no percentage applied on top of it to take care of contingencies and general supervision. However, in the summary of Exhibit 100 an item is allowed for omissions, contingencies, engineering costs, law expenses, miscellaneous construction expenditures, taxes, interest and superintendence. Roughly speaking, the total of these is around 15% of the total cost of land, plant and equipment. A six months' period for reproduction was allowed for the property covered in Exhibit 100 and interest is figured on the average period within the time allowed for the construction of the distribution system at Clinton, Greencastle, Martinsville, etc. In order to build up the unit price on copper wire No. 4 triple braid weather proof, a quotation was obtained of 15.87 cents per pound as of May 1, 1930. The weight has been transformed into a price per thousand feet and thereby a price of $137.44 per mile reached. To this has been added 2% for sag and waste bringing the figure to $140.19. To this has been added a labor item for stringing the wires of $33.94 giving a unit cost per mile of $178.34, which includes a percentage for compensation insurance, storage purposes and a 3% item for purchase and storage. The labor item on this estimate is based on a gang with one foreman at sixty-five cents an hour; six linemen at sixty-five cents an hour; six ground men at forty cents an hour; one truck driver at fifty cents an [fol. 376] hour; making a total crew labor cost of $67.70, to which is added 4% compensation, 5% tool wear, foreman's expenses of $2.50, one ton truck at $1.00 per hour, making $9.00 a day; a Ford half ton truck at forty cents an hour making $3.60 per day, giving a total crew cost of $88.89, which reduced to a man hour cost equals .705 dollars per hour. Wherever possible, unit prices of defendants' Exhibit 100 have been built up in essentially the same manner as described. Thus, the cost of reproduction of poles,

towers and fixtures is given as $26,670. The figure of $75,398 represents the sum total of the unit prices as applied to all items shown in the inventory, but does not include the land at Martinsville, which was set up in another exhibit under power system. To this cost of reproduction is applied a rate of 15% to cover undistributed costs which gives a total of $85,337 cost of reproduction as of May 1, 1930.

In reckoning the item of depreciation of the present property at Martinsville an inspection was made of the actual property and an estimate reached as to how much of the life of the useful property had been consumed. For instance, the average pole was found to have 60% of useful life left. Similarly, all other equipment was valued and an estimate reached of $72,757 as the cost of reproduction new less depreciation of the local property at Martinsville.

In defendants' Exhibit 101 the item of materials and supplies as it appears at the bottom of page B of defendants' Exhibit 100 is taken as a part of what is ordinarily termed working capital. Thus with materials and supplies on hand, less cash needs to be available. By figuring the total operating expense of the entire Wabash Valley system in 1929, and deducting therefrom the power cost and taxes, and figuring the average expense for one month's operation, it is found that on the entire system a total of $208,274 represents the combined items of working cash and material which is 4.08% of total property book value as of December 31, 1929. Thus, on the local property the same percentage has been applied which reaches a total of $2,968 for working capital, material and supplies. 10% has been allowed for [fol. 377] going value, giving a grand total of $83,000 as shown in defendants' Exhibit 101 for the cost of reproduction new of the local Martinsville property as of May 1, 1930, less accrued depreciation. Nothing has been allowed for financing cost. In opinion of witness the cost to reproduce the local Martinsville property new at May 1, 1930, less the ten accrued depreciation is $83,000, and he believes that represents a fair rate base for that local property. Witness made an inventory and appraisal of plaintiff's property located outside of Martinsville and referred to as power system property, as shown by Exhibit 103. The inventory used is as of September 1, 1927 and capital additions between that date and December 31, 1929 are added.

Defendants' Exhibit 103 is an inventory and appraisal of the power system of the Wabash Valley Electric Company as of September 1, 1927, with capital additions from that date to December 31, 1929. The inventory and appraisal as of September 1, 1927 was prepared from the inventory and appraisal used in the previous merger case and is based upon witness' interpretation of the instructions given to the auditing department of the Wabash Valley Electric Company in regard to the classification of the electric properties of the Wabash Valley. These instructions were interpreted as including the local generating plants at Martinsville, Clinton and Sullivan, as a part of the general power system. The plant at Greencastle, with exception of the transformers, is listed as local property. Witness had made an inventory and appraisal of plaintiff's entire property for a merger proceeding. The power system property in Exhibit 103 was segregated from the general inventory upon a classification made by witness according to his interpretation of plaintiff's instructions to its Auditing Department for charges relating to power system property. Local distribution systems are not used or useful in witness' opinion for bringing electricity to Martinsville, and were excluded under application of these instructions to the Auditing Department. These instructions relate to separation of accounts [fol. 378] so as to keep the accounts relating to local and to power system property separate. Witness included in power system the three generating plants at Martinsville, Clinton and Sullivan. The plant at Greencastle, with exception of transformers, is listed as local property. All items thus segregated by witness to power system property are listed in Exhibit 103. On Page 45 of Exhibit 103 a 30′ 6″ pole is given a March, 1929, unit price of $12.56 as compared to a May 1, 1930, price for a like pole in Exhibit 100. The difference in pricing dates and the longer haul of the pole in Exhibit 103 account for the difference in these unit prices. Inspection of power system property to ascertain its condition and to determine deductions due to depreciation was made in the same way as in case of the Martinsville local. Net additions were not depreciated. The cost to reproduce the power system new, less depreciation as of December 31, 1929, is $2,476,237 without the net additions, and is $2,542,345 with net additions. This figure is reached by pricing the September 1, 1927 inventory as of March 1, 1929 and then adding the sum of the net additions from September 1,

1927 up to December 31, 1929. The $2,476,237 figure includes structural overheads and does not include going value, working cash or material and supplies, but these items are included in defendants' Exhibit 104.

Defendants' Exhibit 104 contains additions for working capital, going value, etc. The figure of $2,222,942 shown on Exhibit 104 is the amount remaining after deduction from the power system of the depreciation value of the generating plants located at Clinton, Sullivan and Martinsville, except such equipment as is necessary in operating the property. On page 2 of Exhibit 103 the depreciated value of these properties is listed as $309,388. With the three plants included the resultant valuation for the power system is given as $2,868,366. As an economic addition to the Wabash Valley system the local plants at Martinsville, Sullivan, Clinton, etc., are not worth over $175,000 to $200,000. Assuming that the Wabash Valley Electric Company can purchase all the electrical energy it needs at a rate of one cent per kilowatt hour, witness sees no economic advantage in [fol. 379] maintaining and operating the three plants. As the result of witness' study of the Wabash Valley Electric Company he has determined that the peak demand on the whole system was reached at 8:00 A. M. on September 4th and amounted to 22,518 kilowatts. This demand is limited to that of the Wabash Valley Electric Company's separate entity and does not include any demand upon the system of interconnected or affiliated companies. The maximum demand during 1929 for the Martinsville district appeared in November, date unknown, and amounted to 720 kilowatts which has been apportioned between Martinsville and Morganstown by giving Martinsville 94.2% of the total, producing a demand for Martinsville of 678.2 kilowatts. The demand of the system was reckoned by determining the power fed into the system from the various generating sources, the grand total of which is 23,600 kilowatts. From this was subtracted the energy absorbed by the Indiana Electric Corporation at Lenore which was 1,112, which gave the figure of 22,518 kilowatts. In witness' opinion, the practical method of allocating the power system properties to the Martinsville local properties would be to apply the ratio of local peak demand to the peak demand of the system.

Defendants' Exhibit 106 indicates the result of the application of this ratio. Thus the peak demand at Martinsville has been taken as 3.01% of the peak demand on the whole system and this percentage of the cost of reproduction new, less depreciation of the power system, has been taken as Martinsville's properly allocated share of the power system giving a figure of $86,338 as Martinsville's allocated share of the power system property, which includes the cost of reproduction, less depreciation with additions for working capital and going value. To this figure is added the sum of $83,000 for the reproduction of the Martinsville local property as shown in Exhibit 101 which reaches a figure of $169,338 as the rate base for Martinsville, which includes an allowance for working capital, going value, etc. The power system appraisal is given as of December 31, 1929 and the local Martinsville appraisal as of May 1, 1930. During the year 1929 the maximum demand during each month for the Martinsville district was as fol-
[fol. 380] lows:

January	624 kilowatts
February	600 kilowatts
March	576 kilowatts
April	600 kilowatts
May	672 kilowatts
June	576 kilowatts
July	600 kilowatts
August	600 kilowatts
September	624 kilowatts
October	672 kilowatts
November	720 kilowatts
December	696 kilowatts

Allocating these maximum demands for the Martinsville district on a basis of 94.2% as representative of the Martinsville local use, the following figures were reached for the year 1929:

January	571.6 kilowatts
February	556.8 kilowatts
March	546 kilowatts
April	572.4 kilowatts
May	641.1 kilowatts
June	550.1 kilowatts

July	574.2 kilowatts
August	566.4 kilowatts
September	595.3 kilowatts
October	637.1 kilowatts
November	678.2 kilowatts
December	646.6 kilowatts

Defendants' Exhibit 107 is a report of the commission as to the records of the Wabash Valley Electric Company for the period from January 1, 1929, to December 31, 1929.

The accounting figures used by witness in his exhibits are taken from the audit designated as Exhibit 107. It is here admitted by plaintiff that the item of $3,384.80 added by witness to power system expense is a part of power system expense.

In opinion of witness the rate of return is irrespective of the value that may be fixed for the property. In his opinion 7% would be a fair rate of return. Depreciation should return only the original amount invested. In opinion of witness a composite rate of 4% per annum depreciation upon the cost new, less accrued depreciation, of the depreciable power system property is sufficient.

The figure of $1,288,173.08 in Exhibit 108 represents the amount of money necessary to pay the operating charges, [fol. 381] 4% annual depreciation and a return of 7% on a value of $2,868,366 and taxes on the power system property. This sum divided by the total substation output in 1929 of 75,811,628 K. W. H. results in a cost per K. W. H. of 1.699 cents. This kilowatt hour cost is reckoned at the low side of the power system transformer. This rate of 1.699 cents if applied to the current delivered by plaintiff at the gateway of Martinsville and to the current delivered to plaintiff's other consumers who get electricity off of its power system would produce a sufficient amount to pay all operating expenses of the power system property, all taxes and fixed charges, 4% annual depreciation and a 7% return on a value of $2,868,366. If the appraised value of the three generating plants were excluded from the valuation of the power system the gateway cost would be less than 1.699 cents. The kilowatt hour represents a unit of consumption and is the measure of the amount consumed.

Defendant's Exhibit 109 is a graph showing deviation in copper prices up to August 1, 1930. As of March 1, 1929

the price is given a base of 21.125 cents which is the price used by witness in Exhibit 103. In August, 1930, this price had dropped to 12.75. If the appraisal had been made as of August 1, 1930 the appraisal of the power system property would roughly be $135,000 less.

Defendants' Exhibits 100, 101, 102, 103, 104, 105, 106, 108 and 109 were separately admitted and read in evidence.

The percentage of 3.01 reached as the ratio between the peak load at Martinsville and the peak load of the entire system is simply a figure arbitrarily taken by witness and is not an average. It was witness' idea that the only way in which power system property could be allocated to local Martinsville property would be on the basis between kilowatt hours used by the whole system and kilowatt hours used by Martinsville. The peak demand of the Wabash Valley Electric Company was 22,518 kilowatt hours on the high side of the transformers but on figuring the Martinsville peak demand the low side of the transformer was used. If the transmission and line loss for the Wabash Valley system as a whole, eliminating Attica and Northern Indi- [fol. 382] ana Power, of 16% plus is taken from the 22,518 kilowatts delivered to the Wabash Valley Electric Company then the amount of current which could be distributed on the low side of the transformer would amount to only 18,950 kilowatts. Then deducting the demand of the Attica Electric Company leaves 12,168 kilowatts which would be comparable to the 678 kilowatts delivered to Martinsville on the low side of the transformer, which would increase Martinsville consumption to about 5½% of the total of the power system.

This same comparison of figures between the voltage delivered to the Wabash Valley system on the high side of the transformer and that delivered to the local distribution systems on the low side of the transformer was carried throughout witness' computations at a figure of 3.01%. The book value which witness used in the merger case for the Wabash Valley Electric Company was about $1,000,000 higher than the book value which witness used in this case for the purpose of Exhibit 102. Both figures included all the properties of the Wabash Valley Electric Company, electric, gas and water. Witness took a percentage of 4.08

on the merger valuation of $5,102,000 for cash materials and supplies and applied this same percentage to the lower appraisal valuation, in this case resulting in a figure about $40,000 less than was used in the merger case for working cash, supplies, etc.

Witness was graduated from Purdue in 1916, and went into the army in December, 1917. During the interim witness was at the border with a Purdue battery for two or three months and then came back and taught school at Lawrence, Indiana, during the remainder of the year. Immediately after graduation witness watched switches and other small matters incident to the operation of one of the plants of the Indianapolis Light and Heat Company. After witness got out of the army in 1917 he went almost directly into service with the Public Service Commission of Indiana.

When witness speaks of labor rates he means labor rate per man per hour which estimates were based upon reports [fol. 383] witness received from companies which gave the total number of poles, total labor costs and labor rates. A hypothetical number of men which it was thought would be used was applied and the rate per man hour figured on that basis. None of these estimates showed the number of poles per day that would be set from any given number of men. The peak demand in each of the towns throughout the system would be in varying proportions to the peak demand of the power system. Thus, if the peak demand of each of the various municipalities were added to each other the result might be a total in excess of the peak demand of the whole system. In reaching labor estimates witness had general discussions with engineers in the operating or construction department of the various utilities, as to the size of the crew necessary to do various types of work and how much work a crew could do in one day. The crew of twelve men which witness adopted to string copper wire was used on the transmission system as well as on the distribution.

The power system at Bainbridge substation was inadvertently omitted by witness from his inventory. Outside of this point there is no controversy between witness' inventory and that of Spooner and Merrill. Witness' appraisal is taken as of May 1, 1930, and that of Spooner and Merrill took a date exactly one year prior. The power sys-

tem inventory and appraisal was, however, priced on a basis of March 1, 1929.

Insulators in the power system were valued on a 95% condition and those in the Martinsville local property were valued at 90% condition. Witness does not recall seeing any cracked insulators. This reduction is not based on the actual condition of the particular insulators. It is based only on the observation which shows they are not new. The Clinton to Lafayette line has been built five or six years. The poles in this line were given a rating of 90% and were all treated poles. Probably there is not much difference between the strength of such a pole now and what it was when it was new.

Witness has reached a unit price of $6.97 for each of 1318 meters. In the merger case the figures taken were based [fol. 384] upon the Duncan meter which is made at Lafayette and has a lower freight rate than any of the other meters and is also a little cheaper. Witness has figured that he could install a meter for forty cents in Martinsville. Spooner and Merrill's corresponding figure is $1.05. Witness reached the installation cost of the meter by working out a certain program of installation with a labor crew of a fifty cent an hour second class lineman, a fifty cent an hour meter setter, and a forty cent an hour helper, making a labor cost of $14.00 a day, to which was added 4% for insurance, 3% for tool wear, and a ton and a half truck at $5.50 a day, making the total cost $20.48 a day. This crew cost is divided and two-thirds is set aside for running the service, that is to say, the wires, into the house and one-third to the act of setting meters. It has been estimated that 17 services and meters will be installed per day. The meters are estimated to be in an 85% condition, taking into account witness' theory of obsolescence. In Exhibit 101 none of the property of the Wabash Valley Electric Company which is located in the power plant built in Martinsville is included as a part of the local property although the switchboard panels are largely used for local purposes. Under the setup which witness has adopted, 3.01% of the switchboards are allotted to the Martinsville local property and 96.9% to the general power system. Witness has estimated the boilers in the plant at Martinsville to be in 20% condition as compared to the Spooner and Merrill estimate of 60%. Witness has estimated the piping at

Martinsville to be in 40% condition as compared to Spooner and Merrill's estimate of 70%. All of witness' estimates have been influenced to considerable extent by the length of service of the property. The turbo-generator at Martinsville is estimated to be in 50% condition. Witness was not cognizant of the fact that the generator had been completely overhauled in 1927. The switchboard in the Martinsville plant is given a 50% rating. If a new switchboard had been installed in January or February of 1929, witness would have valued it at 100% as of March 1, 1929. Witness does not know whether such new switchboard was installed.

[fol. 385] Witness found that net additions to power system property between September 1, 1927, to December 31, 1929, were $490,000. He determined that amount primarily from the books of the company. Witness used the company's deductions with the exception of one or two places that he repriced as he had carried it in the inventory, in which case the witness believes the company figures were somewhat higher. If it were assumed that a replaced item of property included in the inventory at $100 was carried by the Company at $150, witness would take such item out of the inventory at $150 if he could not locate the item in the inventory. The effect would be to reduce witness' amount of net additions to a certain extent, but witness would not say that $490,000 is lower than it should be. This figure is slightly lower, the exact amount of which he does not know, than it would have been had witness repriced these retirements, as Spooner and Merrill did, at the price at which he has inventoried them.

In estimating the depreciated value of the substation, which is simply galvanized steel frame, witness would consider the items of inadequacy, obsolescence and physical depreciation to be about equal. Witness believes that the system load will continue to grow and considers this in reckoning obsolescence of equipment. Witness has not included power costs and taxes as part of the system operating expenses because witness is of the opinion that the Wabash Valley Electric Company will not have to pay for power until after it is furnished by the generating plant by which time the power would have been used up by customers who will pay their own bills and enable the utility to pay its bills on practically the same date, the

result of which is that the customers of the Wabash Valley Electric Company furnish the working cash for the payment of power bills. Witness has assumed that power bills ordinarily would not have to be paid for six months. On page 27, Exhibit 107, the total of Martinsville operating expense is estimated to be $65,921, which is composed of a power cost of $32,800; taxes $2,527; local expense less power cost and taxes $30,593.82. If a ratio of Martinsville operating expenses were taken against the system operat-
[fol. 386] ing expenses the result would be a percentage slightly in excess of 8%, while the ratio of kilowatt hours used by Martinsville to the kilowatt hours metered into the system by the generating plant is only about four plus per cent. If the working cash capital of the Martinsville local property is proportioned according to the ratio of Martinsville operating expense to the power system expense the result would be $3,800, as compared to the estimate given of $2,968 for working capital, material and supplies.

The company's books from which the inventory was made show that on December 31, 1929, there was merchandise in the Martinsville property for sale to domestic users of the value of $3,595.26. Similarly, $1,270 worth of meters were shown to be in stock at Martinsville, as well as $1,652.05 worth of transformers on the same date which, in total, shows that on December 31, 1929, there was $6,517 worth of equipment on hand in Martinsville as compared to the $2,900 item shown in Exhibit 101 for working cash capital. In his first exhibit 100 witness allocated Martinsville district material and supplies, 85% to Martinsville local and 15% to Martinsville outlying. The estimated gateway price of 1.669 cents is based on the 75,000,000 kilowatt hours delivered on the low side of transformers throughout the Wabash Valley Electric system instead of the 84,000,000 kilowatt hours which were delivered by the generating company. Thus, in reaching the gateway price of 1.669 cents witness has included the 30,000,000 kilowatt hours sold to the Northern Indiana Power Company and the 1,364,000 kilowatt hours sold to Attica.

The result of this computation is to place the price at the gateway at Martinsville on exactly the same basis as the price at the switchboard of any coal mine, gravel pit or any other large industrial consumer of electricity. Thus, the Northern Indiana Power Company which con-

sumes 30,000,000 kilowatt hours per year is put in the same class with Martinsville, which uses two and a half million kilowatt hours per year. Witness doubts that the Northern Indiana Power Company could take any power from the lines of the Wabash Valley Electric Company if it were charged 1.669 cents per kilowatt hour.

Witness does not know of any company at the present [fol. 387] time from whom the Wabash Valley Electric Company could get electricity at the price of one cent if the person or company from whom it got it did not have a large demand in addition to the Wabash Valley demand. If the figure of 1.669 cents per kilowatt hour were charged the Northern Indiana Power Company for current delivered to it, it could probably get its electricity elsewhere, and not buy through plaintiff, which would leave plaintiff with the difference between what it is now taking and what it is delivering to Northern Indiana Power and Attica Electric Company. If that difference were 35,000,000 kilowatt hours, witness would not divide that amount by the expense of the entire system to get an average Kw. H. price. He would not think it right to divide and allocate this entire system expense directly against plaintiff's own customers when the system has been built to take care of the greater load and capacity. If these expenses were incident only to the delivery of current to plaintiff's own customers, then they should be divided by the kilowatt hours so delivered.

The three local generating plants in Martinsville, Sullivan and Greencastle, which witness appraised as having a depreciated value of $309,388, which is approximately a 40% depreciation from cost of reproduction new, and which witness previously gave an economic valuation of $175,000 to $200,000 materially contribute to the feasibility of the one cent rate at which the Wabash Valley Electric Company purchases its current supply from the Indiana Electric Corporation. The interconnected hook-up enables the Wabash Valley Electric Company to furnish Martinsville with electricity more cheaply than it would be able to furnish the same amount of current from an isolated local plant in Martinsville.

It would not be practical to attempt to serve Martinsville with its present plant without the addition of spare equipment. Witness believes that if the Northern Indiana

Power Company were required to pay the rate of 1.669 cents per kilowatt hour at Lafayette that the Wabash Valley could not afford to pay that price for current interchanged at that point. Thus, when the power supply from [fol. 388] the north becomes available the Wabash Valley Electric Company would not be able to utilize that power because of the high interchange rate. There are some large power users, like coal mines and gravel pits, on plaintiff's system. The average price contemplated by witness' plan is 1.699 cents. The company might not apply an energy cost of 1.699 cents; it might use a demand charge and a different energy charge. The average energy price might be 1.699 cents. The company could not get more than an average cost of 1.699 cents over all, energy and demand, if the average is applied to all the business of the system. Witness does not know what the average bills of plaintiff's large power users figure. In his opinion some could pay 1.699 cents, although it is possible some of the larger ones could not. It might average that. Witness does not contemplate putting everybody—big power users and Martinsville—on the same average of 1.699 cents. If less than that is gotten from some, more than that has to be gotten from others to get the average. Witness can see where it would be good business for the company to give some of its power customers a lower rate than 1.699 cents and make up the difference on some of its smaller companies, which have no chance to generate their own electricity. In witness' opinion this average rate is a good guide in fixing rates in a system like plaintiff's when it is necessary to consider one town out of a bunch of fifty.

The item of $191.00 in Exhibit 100 for law expense is aside from administration and legal expense, and is the local law expense at Martinsville of some local attorney that might take care of local matters during construction. Witness thinks that sufficient. The item of $1,508 in Exhibit 100 for administration and legal expense is 2% of the cost of reproduction, less structural overhead costs.

The item of $1,058 for omissions and contingencies does not include a charge for unfavorable weather conditions, but most of witness' plant set-ups are not based on the maximum amount a crew can do a day, but on the average, which takes into account matters like unfavorable weather

conditions. The average rate of work used by witness allows for striking incidental boulders, iron or something [fol. 389] in an alley encountered in digging holes for posts and foundations for buildings. Witness thinks he took into account imperfect coordination between crews and operations by not assuming the ultimate limit of what one crew might do under perfect conditions. This is included in the unit crew set-up. Witness anticipated delay in deliveries by providing for storage in his unit prices. Witness figured on building the local property at Martinsville as a part of plaintiff's system as a whole. Nothing has been included in the appraisal for cost of financing the company. The witness would expect in establishing a company that a cost of financing would be incurred. Nothing has been included for unforeseen construction difficulties or unfavorable weather conditions.

For going value of the Wabash Valley system witness has simply taken 10% of the present depreciated reproduction value of the property without including the generating plants so that, in effect, as the value of the property depreciates going value also becomes smaller. A substantial part of the Wabash Valley property has been rebuilt and considerable new property added within the past ten years. Notwithstanding this fact, witness has taken $470,000 from the reproduction new value of the power system property as depreciation. In witness' opinion a 4% allowance per year for depreciation would be sufficient to cover depreciation over a period of years.

The figure of $8,684 for materials and supplies in Exhibit 100 includes an item of merchandise in the approximate sum of $3,595, consisting of electric stoves, electric irons, and other equipment that the company might have to sell to its customers. None of this merchandise is considered necessary by witness for the operation of the utility as a utility. This merchandise is the same as an independent dealer might handle.

In plaintiff's Exhibit 21 at page 4, where a gateway rate is computed, all of the gateways within the system are treated on a parity, after first deducting the amount of current delivered to affiliated companies. In arriving at a gate- [fol. 390] way cost in Exhibit 22 the communities and coal mines are treated on a parity.

If the idea of transmitting current from south to north, to affiliated companies, were eliminated from plaintiff's past and future, and a power system sufficient and adequate only for serving the people behind the gateways within the Wabash Valley area were contemplated, it would be the opinion of the witness that the system would be of a considerably different design. It would not necessitate as large a line from Clinton to Lafayette, possibly such a line could be eliminated, and the line from Lenore to Martinsville would not be necessary.

If the various peak demands of the individual communities were added and if the total should reach twice the peak demand of the power system peak demand, then the peak demand at Martinsville being the same would be only 1.505% of the total peak demand. Thus the power system property allocated to the Martinsville local distribution system would be only half as great as allowed in witness' figures. By "peak demand" is meant the maximum usage of electricity within a given time, such as in a fifteen minute interval. It is the maximum flow of energy at one time. This does not mean quantity, it means a rate of flow.

Line losses do not enter into the maximum demand figures used by witness. If line losses occurring over a period of time were deducted from the rate of flow the result would not represent rate of flow.

The percentage of 3.01 by which witness allocated the general power system property to the Martinsville distribution system in defendants' exhibits was reached by dividing the peak demand at Martinsville by the peak demand of the power system. In the opinion of the witness the ratio of Martinsville peak demand to system peak demand has a reasonable relation to the portion of the power system property that is used and useful in bringing electricity to Martinsville. In witness' opinion, the property referred to in plaintiff's Exhibit 2-H, page (A), as line structures and [fol. 391] equipment at Martinsville plant for local Martinsville use only, at a valuation of $10,936, is not properly allocated by plaintiff but should be included as a part of the power system proper.

The Bainbridge substation which witness omitted in his estimate was allowed in the merger case as depreciated at $3,016. This amount should be added to the estimate of the power system appraisal which was given in defendants'

Exhibit 103. This was adjusted by another mistake which included a small portion of the substation at Greencastle which had been retired. The value of this substation is calculated to be $4,364 as of March 1, 1929 so that if this figure were taken out the result would be a net reduction in the total.

In fixing a price of forty cents for the installation of small meters witness contemplated that the individual householders would supply a suitable place to hang the meter so that all that would need to be done would be to fasten the meter in place, and connect at most the ends of eight wires. The figure which witness fixed, in which a crew of three men were estimated to run 17 services and set 17 meters in one day and drive their own truck, was based on information which witness received during interviews with different people on different occasions. Witness cannot recall exactly who they were.

The switchboard and other property in the Martinsville plant which served chiefly the local distribution property, witness included under the general power system valuations and are thereby evaluated at 3.01% as a part of the general power system property allocated to the Martinsville local system. The corresponding panels in the Greencastle substation are allocated to the Greencastle local substation. In all such cases witness followed the bookkeeping system of the Wabash Valley Electric Company and where such equipment was listed as local witness allocated it to the local property.

The result of this is that in some instances 3.01% of such equipment is allocated to Martinsville while in other cases no part of such property is allocated to Martinsville but the whole item is contained under the local distribution system. [fol. 392] In classifying Martinsville local property witness did not always consider it on the basis of property used and useful.

In witness' opinion, the Wabash Valley Electric system should suffer a transmission loss of about 2½% and a well designed transformer should not suffer the loss of over 3% to 4%. Thus, depending on the length of the line the loss on the low side of the transformer should be from 4% to 6%. This estimate does not include the loss sustained in stepping up the current at the Dresser plant which might increase the loss to 6% or 8½%.

The transmission line of the Wabash Valley Electric Company in the lower left hand corner of plaintiff's Exhibit 1 extends from Sullivan to Hymera, Coalmont, Jasonville and Clay City. In witness' opinion, no part of this line is used or useful in supplying electrical energy to the city of Martinsville. Similarly, the branch line from Clinton to Rockville, Bloomingdale, Montezuma, Hillsdale, Dana, St. Bernice, West Clinton and Blanford is not directly used or useful in supplying energy to the city of Martinsville. However, all such lines are indirectly valuable in that they contribute to making a success of the general Wabash Valley System.

If Martinsville were standing absolutely alone it would necessitate a high powered transmission line from Dresser plant to Martinsville and also a transmission line from Lenore substation to Martinsville if two way service were to be provided, but such a system would be prohibitive in expense. Martinsville must buy from some such system as this in order to get advantage of low rates. Exhibits 23-A and 23-B prepared by witness are offered and read in evidence.

September 16, 1930.

HARRY V. WENGER, witness for defendants, testified:

Witness has been chief engineer of the Public Service Commission for two years and prior to that time was a part of the engineering department of the commission for three and a half years. Witness was graduated from Purdue University in 1909 and was employed in various construc-[fol. 393] tion work throughout the west and made the appraisal of the Quimaca Railroad before the railroad commission of California. In 1920 witness was with the tax board of Indiana for four and a half years making appraisals of various industrial plants. Since witness has been with the Public Service Commission he has directed the making of all appraisals made by the engineering department.

The commission makes an attempt to keep records and data regarding construction costs which are changed and varied so as to conform with actual construction practice.

Unit costs used in appraisals of the Engineering depart-

ment of the Public Service Commission are made up from continuous studies wherever accurate data can be obtained. Sometimes this is analyzed out in detail from the company's figures. Other times our system of calculations is used to check against these figures, and if irregularities are found corrections are made in our set-ups. Set-ups are continually changed to agree with actual practice. Our figures are an endeavor to give the total cost of reproducing a property. They are the same type of figures that a contractor would use in his estimating department. Data so gotten is kept in files of the Commission. There are seventeen engineers in this department under supervision of witness. He is familiar generally with plaintiff's properties. An appraisal was made in 1928 under witness' direction of plaintiff's properties in connection with a petition for merger.

The appraisal in Exhibit 100 of the Martinsville local property was made under general direction of witness, and he is familiar with it. In opinion of witness the cost to reproduce the Martinsville local property at May 1, 1930, exclusive of going value and working capital, is $86,845 as shown in the summary in Exhibit 100. Witness inspected some of this property, and believes the deductions made in Exhibit 100 on account of depreciation are logical and reasonable.

Witness has some familiarity with the appraisal of plaintiff's power system property in Exhibit 103 as with Exhibit 100. His opinion is that the cost to reproduce new the power [fol. 394] system property at December 31, 1929, is $2,476,237, without the net additions between that date and September 1, 1927, and without going value and working capital. Witness is generally familiar with the power system property and believes the accounts deducted in Exhibit 103 are right. The generating plants at Martinsville, Clinton and Sullivan are included in Exhibit 103. He thinks it is proper to include them because they are owned by plaintiff, but their real use is for the transmission loop and not the plaintiff itself, or for Martinsville directly. In opinion of witness it is logical to allocate 3% of the appraisal value of the power system property to Martinsville. This percentage is arrived at in Exhibit 110, which witness prepared. The figure 2,186,564 K. W. H. in Exhibit 110 represents net sales in Martinsville in 1929 and is taken from

page 47 of the commission's audit, designated Exhibit 107. The figure 72,242,790 K. W. H. is from the same source, and represents plaintiff's entire net sales. The ratio between these figures is 3.027. This percentage applied to the power system reproduction figure of $2,868,366 makes an allocation of $86,825 to Martinsville. In witness' opinion plaintiff's three small generating plants should be abandoned in the near future, for there is considerable dump power on the market today, and large plants are being constructed at the present time so that there is going to be ample power throughout the state of Indiana, and these plants will not need to be operated for generating current to supply this pool.

In opinion of witness the figure of $169,825 in Exhibit 110 is a fair rate base for Martinsville. Witness is familiar with Exhibits 101 to 109 and says that in his opinion that the methods, principles and figures in them are correct. Witness has seen most of the property, and the little he has not seen would not alter his judgment of value, because the men in his department have seen the property and he has confidence in their ability, and it is impossible to see every piece of property. Witness says 7% would be a fair earning on plaintiff's property. In spite of the fact that some plants have "dump power" available the building of power plants is continuing. "Dump power" is handled by con- [fol. 395] tracts which permit one concern to buy power at its option provided the other has power available to sell. Neither party is obligated either way. In the merger appraisal the value of the total properties, including gas and water, of the Wabash Valley Electric Company was given as $3,710,455 depreciated as of March 1, 1929, to which should be added certain additions between September 1, 1927, and March 1, 1929. These figures do not include the going value, working cash material or supplies and contain certain gas and water properties which should be allocated out.

In the appraisal for the merger case Duncan meters were used as the basis of the unit cost. In the present estimate in building up the unit price of $6.97 for the five ampere hundred volt 60 cycle meter a General Electric meter was used. The list price of this meter is $16.65, to which is applied a discount of 55, 8 and 4 which multiplied on the list

price gives $6.62 as the meter price f. o. b. Indianapolis. The base price for the Westinghouse meter is $6.59; the base price of the Sangamo meter is $7.35; the base value of the Duncan meter is $6.60. The unit cost is built up on the General Electric meter at a cost f. o. b. at Indianapolis of $6.62 plus four cents for freight, 1½% for testing and numbering, 3% purchase and stores, and an item of one cent for hauling and storage which makes a grand total of $6.97.

Defendants' Exhibit 110 was admitted and read in evidence.

September 17, 1930.

EVAN WILLIAMS, witness for defendants, testified:

Witness resides at Indianapolis, Indiana, and for past three and one-half years has been field auditor on the staff of the Public Service Commission. Prior to his association with the commission he was employed for 11 years with the Indiana Service Corporation at Fort Wayne, which is a public utility operating in Indiana. During the latter half of this employment he was employed in the treasury department with duties connected with the compilation of reports to be filed with the Public Service Commission.

[fol. 396] The accounting department of the Public Service Commission made audits of plaintiff's books and records, under supervision of witness. These audits are reported in Exhibit 107 covering the year 1929, in Exhibit 111 covering 1928, and in Exhibit 112 covering June 1, 1923 to December 31, 1926, and they contain balance sheets, income accounts, analysis of balance sheet accounts and operating expenses and other data.

Defendants' Exhibit 113 on page 2 contains a summary for the various months during 1929 beginning with February and ending in December of the revenues under the rates in effect at Martinsville and those ordered by the Public Service Commission in order No. 8894. During this eleven months period the total income of the Wabash Valley Electric Company at Martinsville is given as $91,257.46 under the present rates now in effect at Martins-

ville. The revenue which the same consumption would have produced under the rates ordered by the Public Service Commission in order No. 8894 is given as $77,966.94. The revenue for January, 1929, is found on page 78 of Exhibit 107 and residence lighting under the present rate amounts to $2,759.42 on page 82 of the exhibit. If the proposed rates under order No. 8894 had been in effect the income from residence lighting would have been $2,349.01. The total for the month under the present rate would have been $8,215.91.

Exhibits 119-123 are certified copies of parts of annual reports filed with the Public Service Commission respectively by the municipalities of Goshen, Lawrenceburg, Linton, Tipton and by Madison Light & Power Company of Madison, Indiana. They all own their distribution system within the town, and purchase their power at a gateway price. Based on the information in those exhibits, witness prepared Exhibit 124 to show the population of each municipality, the quantities purchased by each, the total cost, the average cost per kilowatt hour, and from whom purchased. All this information came from reports filed with the Public Service Commission. The input at Martinsville for the comparable period, 1929, was 2,532,798 [fol. 397] kilowatt hours. Martinsville has a population of about 5,500.

Defendants' Exhibits 114, 115, 116, 117 and 118 were the basis of witness' computations as to the cost of generating electrical energy in 1929 by municipal plants in municipalities of a size comparable to Martinsville. Exhibit 114 is Portland, Indiana; Exhibit 115 Rushville; Exhibit 116 Columbia City; Exhibit 117 Greenfield, Indiana; Exhibit 118 Peru, Indiana; defendants' exhibit 125 represents a summary of the use of these local generating plants, the cost per kilowatt hour as given is the bare cost of generation and does not include insurance, working cash capital, material and supplies or going value.

The figures given are comparable to plaintiff's Exhibit 5, table 13, and also comparable to the figures on page 28 of plaintiff's Exhibit 9. Plaintiff's exhibit 6 prepared by Mr. Hamilton, on page 3, under items 18, 19 and 20 has figures comparable to those prepared by plaintiff.

Defendants' Exhibits 107, 112, 111 and 113 admitted and read in evidence. Defendants' Exhibits 114, 115, 116, 117,

118, 119, 120, 121, 122, 123, 124 and 125 were admitted and read in evidence over the objections of plaintiff. (Subsequently excluded.)

Defendants' Exhibit 126, being a certified copy of the return for the year 1930, covering the 1929 tax payment period of the Wabash Valley Electric Company as on file with the State Board of Tax Commissioners, was read and admitted in evidence.

Defendants' Exhibits 114, 115, 116, 117, 118, 119, 120, 121, 122 and 123 are simply copies of papers on file with the Public Service Commission of Indiana and witness does not of himself, know that they are accurate or properly prepared. The costs included in these reports of the municipal plants include nothing for depreciation, return, working cash, general supervision or any incidental expense except the actual operation of the plant described.

[fol. 398] September 18, 1930.

Roy Husselman, witness for defendants, testified:

Witness resides at Cleveland, Ohio. Attended Purdue University in engineering a short time and attended night school at Carnegie Tech School, Pittsburgh. His experience has been largely practical beginning in 1904. In 1912 witness was employed by the department of heat and light of the city of Cleveland, Ohio. During his employment witness had charge, under the chief engineer, of the designing and laying out of the municipal electric plant which involved an expenditure of about three million dollars. Witness rebuilt and rehabilitated the water and light plant at Berea, Ohio. In 1927 witness was associated with some people and bankers in the purchase of small utility property. Since 1927 witness has made various appraisals of utility properties and was employed by the Departmen of Public Utilities of Massachusetts in two cases in regard to the property in the city of Worcester and the city of Cambridge. Witness worked in conjunction with Mr. Wenger, chief engineer of the Indiana Public Service Commission, in regard to the merger of the Central Indiana power group system of which the Wabash Valley is a part.

Witness was retained by the city of Martinsville about February, 1930, under a contract whereby witness' compensation is contingent upon the rate reduction in the city of Martinsville. Witness first visited the city of Martinsville in November, 1929, and inspected the engineering plant and substation. Subsequently, witness went into Martinsville and made an inspection of the distribution system.

Witness has made a study as to the cost of generating local power in Martinsville with a Diesel engine plant, which is contained in defendants' Exhibit 127. As of August 30, 1930, the cost of such a generating plant proper would be $163,000, including allowances for engineering, superintendence, organization costs, materials, supplies and working capital. The estimate is built up upon quotations on the various machinery involved and an estimate of [fol. 399] the cost of constructing a brick building approximately 60′ x 66′ which is estimated at $20,179; $1,460 was allowed for incidentals; 5% of a sub-total of $117,150 was allowed for engineering; 6% per annum is allowed on the construction period of four months; ⅛ of the annual operating expense is allowed for working capital. This estimate is based upon the theory that a distribution system is already on hand ready to receive the energy. Nothing is allowed for going value since it is assumed that the customers would already be attached and awaiting service. A return of 7% on the total cost of $163,000 is given as a reasonable return.

A chief engineer has been provided for the plant at an estimated salary of $2,100 per year. The total crew for the plant is two engineers and two oilers which, with the chief engineers, makes five people. The estimate of salaries per year for the entire crew of the plant is estimated at $9,100. Fuel oil for a year is estimated at $11,861. $2,000 per year is allowed for lubricating oil. $2,400 is allowed for cost of maintenance and repairs. $1,100 is allowed for small incidental supplies and expenses.

The total production expense for one year is estimated to be $26,451, which is divided by 2,532,800 kilowatt hours, which is estimated to be the output necessary to supply Martinsville, and witness thereby reaches an average cost per kilowatt hour of .01447 dollars which does not take into account any expenditure on account of fixed cost. By

adding fixed costs an average cost at the switchboard is reached of 1.88136 cents per kilowatt hour. Nothing has been allowed in this estimate for cost of financing or going value. This plant is so constructed as to be able to take care of a peak load of 678 kilowatts.

In witness' opinion a large transmission system such as the Wabash Valley Electric Company can deliver power cheaper than it can be generated in the local plant and the figure of 1.5749 cents per kilowatt hour in exhibit 128 prepared by witness expresses witness' opinion as to the price at which the Wabash Valley Electric Company can supply [fol. 400] current to Martinsville making allowance for operating costs, fixed charges, annual depreciation, and permit a return of 7% on the value of the power system property. By dividing, in exhibit 129 prepared by witness, the operating expenses of the local generating plants of the Wabash Valley Electric Company by the cost of operating those local plants as shown on page 34 of Exhibit 107, witness concludes that these local plants produced current at a cost of 9.58 cents per kilowatt hour for the year 1929, and at a cost of 7.78 cents for the year 1928. During the year 1928 the local plants generated .221% of the total energy output of the Wabash system and in 1929 .146%. In witness' opinion, the local plants are not economically valuable to the Wabash Valley Electric system, and in making his appraisal of the power system of the Wabash Valley the witness has not included the local generating plant equipment but has only included certain property in the local generating plant equipment which would be necessary in a sub-station.

Defendants' Exhibit 130 represents a further study as to the total cost of the electrical energy generated by the plants at Clinton, Sullivan and Martinsville in the year 1929 on the theory that the generating plants were left in the power system property at the appraised value as shown by Spooner and Merrill. In this exhibit witness concludes that the cost of generating a kilowatt hour in these plants during the year 1929 was 44.6 cents per kilowatt hour.

If the Wabash Valley Electric Company has in the past and can now and in the future purchase all of the energy it needs at the rate of one cent per kilowatt hour the local plants have no economic value. Witness has estimated the number of kilowatt hours which the local plants must pro-

duce in order to keep down the peak demand of the Wabash Valley Electric Company in regard to its contracts with the Dresser plant and reaches the conclusion that if this peak load had been purchased from the Dresser plant instead of operating the local generating plants that the Wabash Valley Electric Company would have saved the difference between $82,004.38, which is the estimated oper-
[fol. 401] ating cost based on Spooner and Merrill's appraisal of the local property and the cost of purchasing the current which is estimated to result in a saving of $21,942 a year.

Defendants' Exhibit 131 is an estimate and appraisal of the purely local Martinsville property as of May 1, 1930. The reproduction cost is estimated to be $94,829, which is depreciated to reach a cost of reproduction new, less depreciation, of $81,127. Owing to reduced prices of copper, an estimate of reproduction new less depreciation as of September 1, 1930, is given as $79,730. This figure is practically an adoption of the figure used by the Public Service Commission's engineer. Witness' own judgment as to the cost new less depreciation is $62,952, taking into account wear and tear and depreciation due to age. Witness makes no separate allowance for going value but says he does not ignore it and takes it into account in estimating the item of organization, administration, legal and other costs. Witness allowed $3,200 on page 1 of Exhibit 131 as cash working capital.

Defendants' Exhibit 132 is witness' estimate and appraisal of the power property of the Wabash Valley Electric Company with the exception of the three generating plants at Clinton, Martinsville and Sullivan. The unit costs used herein are essentially the same as the unit costs used by the Public Service Commission in their appraisal and, in witness' opinion, they are correct. Owing to the difference in copper prices, witness has adjusted his appraisal to bring the total figure down to September 1, 1930.

Additions to local generating plants have not been included in witness' appraisal and are deducted from the commission's appraisals. In witness' opinion, the cost of reproduction new less depreciation of the power system property, as of September 1, 1930, is $2,209,662, which includes working capital, supplies and cash.

Defendants' Exhibit 133 details the process by which witness arrived at a rate of 3.1% as a proper rate for annual depreciation of the power system property, and a rate [fol. 402] of 4.1% for the Martinsville local property. Defendants' Exhibits 12, 128, 129, 130, 131, 132 and 133 were admitted and read in evidence. Witness, in estimating the cost of the current delivered at Martinsville per kilowatt hour took the figure on the high side of the substation and divided it into the operating cost thus getting a lower cost per kilowatt hour than if the current on the low side of the transformer had been used. Witness has allowed 2% on his valuation for working men's compensation insurance and taxes. Witness spent about sixty days with the commission engineer during the merger case and discussed his theories with them. About five days of this period was spent in the field inspecting the properties of the Central Indiana Power group of which the Wabash Valley Electric Company is a part. During this time witness covered about forty different communities. Witness did not see but about 200 miles of the transmission lines of the Central Indiana Power group.

Since that time witness has spent two days looking over the property of the Wabash Valley Electric Company but did not go into any of the power plants. On the six months' construction period which witness allowed for the Martinsville local plant he fixed taxes at one-fourth of 1% upon the figure and reached the amount of $202. On page 4 of Exhibit 131 witness includes the cost of securing customers as a part of an allowance of $830. Outside of organization, administration and legal costs, which are estimated at $5,308, nothing additional is allowed by way of going concern value. Witness has assumed that when the plant is completed it will immediately have customers who will take substantially all of its output.

Witness is of the opinion that the local generating plants can be taken out of the general power system at an appraised value of between $400,000 and $500,000. Witness believes that properly accumulated reserves for depreciation should be provided out of which the retirement of such property should be amortized. Witness has provided a straight line depreciation of 3.1% per annum. None of the present turbo-generators in the local plant has been in service for anywhere near the period of twenty-five years.

[fol. 403] Assuming that the payment of one cent per kilowatt hour to the Indiana Electric Corporation would not have to be made until the Wabash Valley Electric Company had been paid by its consumers, witness believes that the Wabash Valley Electric system property, which witness estimates at a valuation of $2,209,000 could be carried along with a cash working capital of $18,915. Witness has included going value as a part of the power system organization costs of $19,900 and of the Martinsville local organization costs of $5,308. Thus going value of the Wabash Valley Electric system including the power system and the Martinsville local system would be included as a part of the amount accruing by virtue of the additions of these two sums amounting to about $26,000.

Plaintiff's Exhibit 24 read and admitted in evidence. (Never expressly admitted.)

LAWRENCE CARTER, witness for defendants, testified:

Witness resides at Indianapolis, Indiana and is a certified public accountant of the state of Indiana. Witness was at one time for two years assistant chief examiner or accountant for the Public Service Commission. Witness has made a study and examination of defendants' Exhibits 107, 111, 112 and 113 and witness has summarized his findings in Defendants' Exhibit 134. Defendants' Exhibit 135 also prepared by witness shows computations based upon the figures in several exhibits which witness examined and also exhibits which have heretofore been put in evidence. This exhibit shows income accounts for the year 1929 under the rates set out in Public Service Commission's order No. 8894 showing the rate of return on the $87,000 valuation found for local property at Martinsville, to which is added $86,338 being 3.01% of the total power system property of the Wabash Valley Electric Company. Depreciation is computed at 4% upon depreciable property valued at $149,-281. The sum of $614.78 is apportioned as the Martinsville share of indirect charges to construction with a credit due power system costs. $400 has been allotted as the amortized share of the rate case expense in accordance with the commission order to be charged as a part of oper-[fol. 404] ating expense. Total operating expenses are

estimated to be $54,979.45. Then 4% for annual depreciation is applied. The fair value of the property used and useful in Martinsville, including the local and allocated portion of the power system, amounts to $173,338, and for the year 1929 the return on that amount is $23,799.44, which is a return of 13.7% upon the rate base. For the rate base, witness has taken the amount fixed by the Public Service Commission as the total value of the Martinsville property, which is $87,000. The power cost has been estimated by multiplying 2,532,798 kilowatt hours by 1.72 cents, which amounts to $43,564.13. The operating expenses and power costs are taken from the audits of the commission. 4% annual depreciation is allowed upon $72,757 as being the valuation of the depreciable property at Martinsville, which is taken from the commission's appraisal. Upon this basis the return upon the $87,000 appraisal fixed by the commission amounts to 19%. By figuring backwards, taking 4% on the same amount of depreciable property and 7% return on $87,000, the company would have had available to buy power at the gateway $54,000.80, which would have permitted it to pay 2.13 cents per kilowatt hour at the gateway, which is forty-one hundredths of a cent per kilowatt hour higher than the rate established by the commission.

Defendants' Exhibit 136 contains adjustments of figures in Exhibit 135. Column A contains items of revenue and expenses for the year 1929 as taken from the commission's audit. After adjustments, total operating revenue is given as $84,750.13. It is a mathematical application of the new rate to the consumption for the year 1929. The actual operating revenue for the year 1929 was $99,550.91 from which is deducted $14,800.78 to adjust the revenue to the new rates. The total operating expense, after certain additional adjustments is $54,979.45. After adjustments, a gross income before depreciation is given of $29,770.68. Exhibit 136 also shows the return upon the various valuations introduced in this case, including that of Spooner and Merrill. After deducting 4% depreciation the amount of $23,799.44 is available for return which, under the Public [fol. 405] Service Commission appraisal, permits a return of 14.1%. In computing operating expenses $400 per year has been allowed for rate case expense. In each instance, in allocating power system property to Martinsville the

percentage of 3.01 has been applied to the valuation computed by the various engineers. Under Spooner and Merrill's appraisal witness finds that $22,328.32 is available for return, which permits a rate return of 9.1%. Similarly, the return upon Husselman's appraisal amounts to 16.8%. Defendants' Exhibit 138 shows the amount available for power costs after allowing expenses, 4% depreciation, and 7% return on the Martinsville local property, in accordance with Public Service Commission order No. 8894 based on 1929 with certain adjustments. Exhibit 137 shows a power cost of $43,564.13 for the year 1929 based on the gateway price of 1.72 cents per kilowatt hour. It is computed that $19,436.95 was available for return and depreciation on the Martinsville local property. On this amount has been computed the rate of return which would occur on the several bases of appraisal introduced in this case. On the Public Service Commission appraisal this amounts to 19.9%. Exhibit 138 indicates that deducting 4% for annual depreciation and allowing 7% return on the cost of reproduction new, less depreciation of the Martinsville local property that there would be available for the purchase of power at the gateway under the appraisal of the commission, 2.14 cents per K. W. H. on a total property valuation of $83,000. Under Husselman's valuation of $79,730, the plaintiff could pay 2.16 cents per K. W. H. at the gateway. Under Spooner and Merrill's appraisal on a valuation of $133,402, the plaintiff could pay 1.95 cents per K. W. H. at the gateway and under Stone and Webster's appraisal of $119,818, the plaintiff could pay 2.00 cents per K. W. H. at the gateway. Defendants' exhibits 134, 135, 136, 137 and 138 were admitted and read in evidence.

Defendants' Exhibit 135 uses 1929 consumption and expense figures and applies them to an inventory of the value of the property as of November 30, 1927. In each of the exhibits the general expenses of this rate case have been eliminated and $400 allowed annually as in accordance with commission's order No. 8894. In preparing the exhibits to [fol. 406] which witness testified, witness assembled and compiled figures and made computations and witness does not vouch for any of the theories upon which the computations are based and the work of witness was purely mechanical.

September 19, 1930.

WILLIAM F. HABENEY, witness for plaintiff, testified:

Witness resides at Indianapolis, Indiana, and has been employed by the Indianapolis Power and Light Company since 1908 with the exception of five years spent with the Public Service Commission of Indiana. Witness is an engineer and has charge of the installation and connection of meters for the Indianapolis Power and Light Company. A crew of one second-class lineman, meter installer and helper is used with a truck to install meters. On a ten hour day basis one hour of which is taken up by getting the car out of the garage, getting material, and writing up installation of meters, such a crew will, on an average, install about eleven meter services.

Plaintiff's Exhibits 26 and 27 were admitted and read in evidence.

Abstract of Plaintiff's Exhibits

EXHIBIT 1

Map of Transmission Lines

(Here follows Plaintiff's Exhibit 1, side folio 407)

September 19, 1930.

WILLIAM F. HABENEY, witness for plaintiff, testified:

Witness resides at Indianapolis, Indiana, and has been employed by the Indianapolis Power and Light Company since 1908 with the exception of five years spent with the Public Service Commission of Indiana. Witness is an engineer and has charge of the installation and connection of meters for the Indianapolis Power and Light Company. A crew of one second-class lineman, meter installer and helper is used with a truck to install meters. On a ten hour day basis one hour of which is taken up by getting the car out of the garage, getting material, and writing up installation of meters, such a crew will, on an average, install about eleven meter services.

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Abstract of Plaintiff's Exhibits

EXHIBIT 1

Map of Transmission Lines

(Here follows Plaintiff's Exhibit 1, side folio 407)

FOLD-OUT IS TOO LARGE TO BE FILMED

[fol. 408] EXHIBITS 2-A TO 2-F

Itemized inventories and appraisals by Spooner and Merrill of entire system property of Wabash Valley Electric Company—consists of 1,423 sheets of itemized appraisals.

EXHIBIT 2-G

Summary of Appraisal by Spooner and Merrill of System Properties. Cost of Reproduction New Using May 1, 1929, Prices of Electric Properties of Wabash Valley Electric Company Based on September 1, 1927, Inventory with Actual Construction Additions and Betterments to May 1, 1930. Consists of 65 Sheets of Tabulations

	Cost of reproduction	
	New	Less depreciation
Appraised property less retirements, plus book additions to May 1, 1930	$4,928,134	$4,454,061
Not used by electric utility	133,775	102,309
Electric utility property	$4,794,359	$4,351,752
Material and supplies		140,000
Working cash		163,000
Going concern value		719,154
Cost of financing		182,185
Total value less depreciation		$5,556,091

EXHIBIT 2-H

Spooner and Merrill Martinsville Local. Cost of Reproduction New of May 1, 1930. Inventory Based on May 1, 1929. Prices with Certain Additions for Allocated Equipment

	Cost of reproduction	
	New	Less depreciation
Land, structures and equipment at Martinsville plant for local Martinsville use only	$12,475	$10,936
Distribution system, including structural overheads	95,865	85,193
General equipment allocated to local Martinsville Electric	5,412	4,530
Total	$113,752	$100,659
Materials and supplies		10,000
Working cash		3,358
Going concern value		17,063
Cost of financing		4,322
Total value less depreciation		$135,402

[fol. 409] EXHIBIT 2-I

Allocation to use of Wabash Valley Electric Company properties to separate power system from local distribution systems. Cost of reproduction of electric properties new less depreciation adjusted to May 1, 1930, including overhead

	Power	Local
Generating plants	$424,282	$33,850
Substations	737,386	116,358
Transmission system	1,409,227	.....
Carrier current equipment	50,169	.....
Low voltage substation	37,674	63,191

Transmission system low voltage	178,499	.....
Distribution system	.....	1,149,839
Consumer installations	.....	68,902
General office	.....	3,578
Stores department	.....	4,413
General equipment	.....	74,384
Total	$2,837,237	$1,514,515
Power system		$2,837,237
Local system		1,514,515
		$4,351,752
Total cost of power system depreciated, including going value, etc. (See Exhibit 26)		$3,637,650

EXHIBITS 3-A TO 3-E

Photographs of poles and equipment.

EXHIBIT 4-A

Net increase to Wabash Valley Electric Company, electric properties from September 1, 1927, to February 28, 1929	$241,612.76

EXHIBIT 4-B

Net increase to Wabash Valley Electric Company electric properties from February 28, 1929, to April 30, 1930	576,375.33
Total	$817,988.09
Net additions to power system September 1, 1927, to April 30, 1930	$539,065.00

[fol. 410] EXHIBIT 5

Estimated cost of generating local power at Martinsville by Sargent and Lundy (F. W. Martin)

Scheme 1:	
Present property retained as depreciated	$102,488
Additions new	52,443
With additions for overhead, financing, going value, etc.	51,779
Total depreciated	$206,710
Scheme 2:	
Present property retained as depreciated	$83,381
Additions	119,891
With additions for overhead, financing, going value, etc.	48,072
Total depreciated	$251,344
Scheme 3:	
Construction cost of new plant	$280,420
Overhead and intangibles	49,802
Total	$330,222

Cost per KWH	Scheme 1	Scheme 2	Scheme 3
7% return	$.03266	$.03121	$.03052
8% return	.03347	.03221	.03181
Change per unit cost per 10c change in price of coal	.0035	.0030	.0020

[fol. 411] EXHIBIT 6

Spooner & Merrill estimate for local plant at Martinsville, Prepared by Charles A. Hamilton

Plan 1:	
Old equipment retained as depreciated	$76,928
New equipment	66,816
With additions for overhead, financing, going value, etc.	64,987
Total cost depreciated	$208,731
Plan 2:	
Old equipment retained as depreciated	$73,821
New equipment	118,530
With additions for overhead, financing, going value, etc.	71,009
Total cost depreciated	$263,360
Plan 3:	
Cost of new plant	$327,171

Cost of generating KWH	Plan 1	Plan 2	Plan 3
7% return	$.033255	$.031590	$.028958
8% return	.034078	.032629	.030249
Change for each 10c change in coal price	.003540	.002896	.001822

[fol. 412] EXHIBIT 7

Stone and Webster appraisal of electric properties of Wabash Valley Electric Company using May 1, 1929, prices applied to September 1, 1927, inventory. (See Exhibit 2-G.)

	Cost of reproduction	
	New	Less depreciation
Cost of reproduction	$3,168,186	$3,061,555
Addition to May 1, 1930	1,151,952	1,151,952
General construction costs	505,000	505,000
Organization	100,000	100,000
Working capital	200,000	200,000
Cost of financing	270,000	270,000
Going value	540,000	540,000
Total	$5,935,138	$5,828,507

Appraisal of various divisions of Wabash Valley Electric Company properties less observed depreciation using May 1, 1929, prices, applied to September 1, 1927, inventory

Generating plants	$437,932
Substations	545,275
Transmission system high voltage	994,893
Telephone, telegraph, wireless	35,227
Substations—low voltage	54,187
Transmission system low voltage	114,349
Distribution system	788,988
Consumer installations	37,819
General office	3,900
Stores department	6,005
General equipment	42,980
Total	$3,061,555

EXHIBIT 8

Stone and Webster appraisal of Martinsville local distribution system as of May 1, 1930, at May 1, 1929, prices

	Cost of reproduction	
	New	Less depreciation
Structural cost	$85,953	$84,418
General construction costs	12,700	12,700
Organization	2,000	2,000
Working capital	4,100	4,100
Cost of financing	5,600	5,600
Going value	11,000	11,000
Total	$121,353	$119,818

[fol. 413]

EXHIBIT 9

Stone and Webster estimate for cost of Generating Local Power at Martinsville

Plan 1:	
Present property retained as depreciated	$130,000
New equipment	82,000
With addition for going value	24,000
Total cost depreciated	$236,000
Plan 2:	
Present property retained as depreciated	$107,000
New equipment	173,000
With addition for going value	24,000
Total cost depreciated	$304,000
Plan 3:	
Cost of new plant, including going value	$385,000

Cost of generating KWH, including a return of 8%	Plan 1	Plan 2	Plan 3
13% investment charge	$.03357	$.03417	$.03562
14% investment charge	.03447	.03539	.03712
Change in unit cost per 10c change in price of coal	.00296	.00252	.00205

EXHIBIT 10

Rates ordered by public service commission of Indiana for Martinsville applied to all Class A* and Class B* towns of Wabash Valley Electric Company showing gross reduction in revenue based on billings from May 31, 1929, to May 31, 1930

* Regulation of Public Service Commission for annual report.
Class A—Town over 10,000 population;
Class B—Town between 3,000 and 10,000 population.

	Gross total reduction	
	Optional	Non-optional
Martinsville	$16,278.72	$15,901.70
Clinton	12,813.43	9,128.27
Greencastle	18,873.82	17,681.60
Jasonville	8,105.34	6,865.89
Sullivan	16,026.35	14,481.29
Total	$72,099.66	$64,058.75

[fol. 414] EXHIBIT 11

A detailed explanation of undistributed unit cost. Read the exhibit for the method used.

EXHIBITS 12-A TO 12-B

Order and supplemental order of Public Service Commission of Indiana dated January 26, 1929, and February 15, 1929, respectively, copies of which are attached to the Bill of Complaint as Exhibits A and B respectively.

EXHIBIT 13

Comparison of wire prices May 1, 1929, to September, 1930

Decrease entire system	$130,733
Decrease Martinsville local	6,575

EXHIBIT 14

Copper wire base as published in Engineering and Mining Manual

January, 1929	18.62 cents per pound
March, 1929	23.82 cents per pound
May, 1929, to March, 1930	19.875 cents per pound
September, 1930	12.75 cents per pound

EXHIBIT 15

Energy received from Northern Indiana Power Company at Lafayette, and transmitted over Lafayette-Clinton Transmission Line during year ended May 31, 1930.

Total transmitted	1,585,400 KWH

EXHIBIT 16

Energy purchased and generated by Wabash Valley Electric Company during year ended December 31, 1928

Purchased:	
Illinois Power & Light Company	4,400 KWH
Interstate Public Service Company	273,300 KWH
Terre Haute, Indianapolis & Eastern Traction Company	35,401 KWH
Indiana Electric Corporation	79,962,702 KWH
Total purchased	80,275,803 KWH
Generated	177,680 KWH
Grand total	80,453,483 KWH

[fol. 415] EXHIBIT 17

Energy Purchased and Generated by Wabash Valley Electric Company During Year Ended May 31, 1930

Purchased:	
Interstate Public Service Company	396,560 KWH
Terre Haute, Indianapolis & Eastern Traction Company	42,897 KWH
Indiana Electric Corporation	84,778,437 KWH
Total purchased	85,217,894 KWH
Generated	77,945 KWH
Grand total	85,295,839 KWH

EXHIBIT 18

Record of Dividends on Common Stock of Wabash Valley Electric Company from June 30, 1923, to June 30, 1930

	Par value outstanding	Rate	Amount paid
December 31, 1923	$500,000	8%	$40,000.00
March 31, 1924	500,000	4%	20,000.00
June 30, 1924	500,000	8%	40,000.00
June 30, 1925	500,000	4%	20,000.00
October 31, 1925	500,000	4%	20,000.00
October 31, 1925	620,000	...	.....
December 31, 1926	620,000	...	.....
December 31, 1927	620,000	6%	37,200.00
December 31, 1928	620,000	...	.....
December 31, 1929	620,000	...	.....
June 30, 1930	620,000	...	.....
Average for period	$580,000	4.36%	$25,314.28

[fol. 416]

EXHIBIT 19

Comparison of Construction Expenditures of Wabash Valley Electric Company Subsequent to June 26, 1923, and Proceeds from Securities Authorized for Construction Expenditures to April 30, 1930

Plant property balance per books:		
April 30, 1930—(without allowance for going value, working capital, materials and supplies)		$5,235,900.94
Electric utility	$4,940,686.94	
Gas and water utility	295,214.00	
	$5,235,900.94	
Less: Property set up on Public Service Commission order No. 7018, dated June 26, 1923		1,979,976.72
		$3,255,924.22
Less: Charges not fundable (organization)		5,136.90
Total fundable construction expenditures		$3,250,787.32
Realization on securities issued and sold subsequent to Public Service Commission order No. 7018, dated June 26, 1923		2,156,320.00
Remainder—Construction expenditures subsequent to Public Service Commission order No. 7018 for which securities have been partially authorized (see below)		$1,094,467.32

Estimated Realization on Unsold Securities Authorized by Public Service Commission

	Par	Authorized at	Realization	
Bonds	$242,000	94	$227,480	
Preferred Stock	245,600	90 & 94	226,864	
Common Stock	401,600	90 & 94	367,264	
Total	$889,200			821,608.00
Excess of construction expenditures to April 30, 1930, over realization from securities if all authorized securities were sold at authorized prices				$272,859.32

[fol. 417]

Summary of Securities of Wabash Valley Electric Company Issued Under Authority of Public Service Commission of Indiana as Shown in Exhibits 19 and 19-A to 19-L, Inclusive

Exhibit number	P. S. C. I. order	Purpose of issue	Amount
19-A	7018	Retiring, refunding, acquisition of property, construction and working capital	$1,811,700
19-B	8955	Construction	729,200
19-C	7286	Construction	373,100
19-D	8505	Construction	523,000
19-E	8142	Acquisition of property	160,000
19-F	8071	Construction	266,000
19-G	7893	Construction	353,000
19-H	7673	Construction	573,000
19-I, 19-J	7496	Construction	194,000
19-K	7422	Construction	88,100
19-L	7441	Acquisition of property	17,000
Total authorized securities			$5,088,100

[fol. 418] EXHIBITS 19-A TO 19-L

Certified copies of orders of the Public Service Commission of Indiana authorizing the issuance of securities by the Wabash Valley Electric Company.

EXHIBIT 19-A

Order No. 7018—Approved June 26, 1923

The order sets forth a copy of the petition which shows that Wabash Valley Electric Company serves Clinton, Dana, Blanford and St. Bernice in Vermillion county, and the towns of Lyford, Rosedale and Montezuma in Parke county, all of which are interconnected by electric transmission lines, and is also the owner of an electric transmission line connecting Clinton in Vermillion county with the city of Greencastle in Putnam county, and also manufactures and sells electricity to towns and cities in Sullivan, Greene and Clay counties in Indiana, all of which are interconnected by electric transmission lines, and manufactures at its steam plants located at Clinton and Sullivan substantially all of the electricity distributed by it and by the Putnam Electric Company and Cayuga Electric Company.

Putnam Electric Company manufactures and sells electricity at Greencastle and Cloverdale in Putnam county, said communities being interconnected by electric transmission lines.

Cayuga Electric Company sells electricity in Cayuga and Newport in Vermillion county, which communities are interconnected by electric transmission lines.

Martinsville Gas and Electric Company sells electricity and gas in Martinsville in Morgan county, Indiana.

Spencer Light, Power, Heat & Water Company sells and distributes electricity and water in Spencer, Owen county, Indiana.

Gosport Electric Company sells and distributes electricity in Gosport, Owen county, Indiana.

Morgan County Light and Power Company transmits and sells electricity in Morgantown, Morgan county, Indiana.

[fol. 419] Roachdale Electric Company serves cities and towns in Putnam, Hendricks and Montgomery counties, Indiana, with electrical energy, and said towns are interconnected by transmission lines.

Wabash Valley Electric Company desires to purchase the electrical properties of all of the above named companies and to issue its securities for the purpose of refunding certain of its outstanding obligations, and also for making said purchases.

The aggregate fair value of all the properties, when the purchases are made and the securities issued, will be $2,073,000. Wabash Valley Electric Company will refund all of its securities, except $250,000 par value of common stock, and the aggregate amount of securities outstanding will then be $1,811,700, and will consist of the following:

Common stock	$500,000 par value
Seven per cent preferred stock	306,300 par value
Six per cent bonds	1,005,400 par value
Total	$1,811,700

It is found that the aggregate value of the properties owned and to be acquired is in excess of the aggregate par value of the securities to be authorized.

It is ordered that the Wabash Valley Electric Company be authorized to issue and dispose of the following securities for the purposes aforesaid:

$1,005,400 principal amount 6 per cent bonds.
306,300 par amount 6 per cent preferred stock.
250,000 par amount common stock.

The securities authorized to be issued to be sold or exchanged and the property and cash received therefor to be used in purchasing the properties and refunding obligations as above set forth.

[fol. 420] EXHIBIT 19-B

Order No. 8955—Approved June 7, 1927

Shows additions, improvements and extensions to its power plant, transmission line, substations and distribution systems, against which no securities have heretofore been authorized, the total cost of which will be $685,434.

It is therefore ordered that Wabash Valley Electric Company be authorized and it is hereby authorized to issue and sell (at not less than 94 per cent of the par value thereof), $438,000 First Mortgage 6 Per Cent Gold Bonds; $145,600 7 Per Cent Preferred Stock and $145,600 Common Capital Stock.

EXHIBIT 19-C

Order No. 7286—Approved August 31, 1923

Shows permanent extensions and additions to its property and plant properly chargeable to capital account in the amount of $87,361.77 made between May 1, 1923, and June 30, 1923.

It contemplates making additions, extensions and improvements to its plant and system to be completed by December 31, 1923, in the amount of $249,798.24.

It is therefore ordered that Wabash Valley Electric Company be and it is authorized to issue and sell (at not less than 90 per cent of par and accrued interest), $252,400 of its 6 Per Cent, Series A, First Mortgage 25 Year Bonds dated May 1, 1923, and it is also authorized to issue and sell at not less than 90 per cent of par $120,700 of its 7 Per Cent Preferred Stock.

[fol. 421] EXHIBIT 19-D

Order No. 8505—Approved May 21, 1926

Shows permanent extensions and additions to its property and plants properly chargeable to capital account

which have been made and are to be constructed in the near future; the estimated total cost of which is $471,054.46. An exhibit filed with the amended petition, which is not a part of the certified order, gives a summary of the actual expenditures from November 30, 1924, to March 31, 1926, and also itemizes the contemplated expenditures.

It is therefore ordered that the Wabash Valley Electric Company be, and it is, authorized to issue and sell (at not less than 90 per cent of its principal amount par value), $323,000 6 Per Cent First Mortgage Gold Bonds; $100,000 par value of 7 Per Cent Preferred Stock and $100,000 par value of Common Capital Stock.

EXHIBIT 19-E

Order No. 8142—Approved August 23, 1925

Authorizes Wabash Valley Electric Company to purchase from Indiana Power Company an electric transmission line extending from Worthington to Martinsville, Indiana, a distance of 43.57 miles, and equipment accessory thereto, for the sum of $144,187.

It is therefore ordered that the Wabash Valley Electric Company be, and it is, authorized to issue and dispose of (at not less than 90 Per Cent of the principal amount or par value thereof), $96,000 principal amount 6 Per Cent Bonds; $32,000 par value 7 Per Cent Preferred Stock and $32,000 par value Common Stock.

[fol. 422] EXHIBIT 19-F

Order No. 8071—Approved June 19, 1925

Shows permanent extensions and additions to its property and plant properly chargeable to capital account, together with contemplated additions, extensions and improvements, totaling in all $238,870.50.

It is therefore ordered that the Wabash Valley Electric Company be, and it is, authorized to issue and dispose of (at not less than 90 per cent of the principal amount or par value), $160,000 principal amount of 6 Per Cent Bonds; $53,000 par value 7 Per Cent Preferred Stock and $53,000 par value Common Stock.

Exhibit 19-G

Order No. 7893—Approved February 14, 1925

Shows permanent extensions and additions to its property and plant properly chargeable to capital account in the amount of $269,179.21, made between April 30 and November 30, 1924. It contemplates making additions, extensions and improvements to its plant and system in the amount of $454,178.02, from which are deducted contemplated retirements amounting to $6,722.91, which gives a total of $447,455.11. This added to $269,179.21, totals $716,634.32, from which are deducted expenditures contemplated in order No. 7673 amounting to $399,020.57, leaving a total of unfunded expenditures as contemplated in the amount of $317,613.75.

It is therefore ordered that Wabash Valley Electric Company be and it is authorized to issue and dispose of (at not less than 90 per cent of the principal amount or par value), $211,000 principal amount of its 6 Per Cent Bonds; $71,000 par value of its 7 Per Cent Preferred Stock and $71,000 par value of its Common Stock.

[fol. 423]

Exhibit 19-H

Order No. 7673—Approved August 18, 1924

Shows permanent extensions and additions to its property and plant properly chargeable to capital account in the sum of $460,454.89, made between September 30, 1923, and April 30, 1924. It contemplates making additions, extensions and improvements to its plant and system in the amount of $399,020.57 from May 1, 1924, to December 31, 1924, all of which totals $859,475.46, from which are deducted contemplated expenditures, order No. 7422, in the amount of $166,724.83, and contemplated expenditures, order No. 7496, in the amount of $175,135.07, and contributions for extensions, $1,517.61, all of which totals $343,377.51, which deducted from the sum of $859,475.46, leaves a total of unfunded expenditures in the amount of $516,097.95.

It is therefore ordered that Wabash Valley Electric Company be and it is authorized to issue and dispose of (at not less than 90 per cent of par or face amount)

$387,000 of its 6 Per Cent Gold Bonds according to the provisions of its trust deed to Union Trust Company of Chicago, Illinois, dated May 1, 1923; $100,500 par amount of its 7 Per Cent Preferred Stock and $85,500 par value of its Common Stock.

EXHIBIT 19-J

Order No. 7496—Approved March 21, 1924

Shows contemplated additions, extensions and improvements to its plant and system to be completed subsequent to January 1, 1924, in the amount of $175,135.07.

Balance sheet as of December 31, 1923, shows total assets and other debits to be $3,117,777.45.

It is, therefore, ordered that the Wabash Valley Electric Company be, and it is, authorized to issue and sell (at not less than ninety per cent (90%) of par) $110,000.00 of six per cent (6%) Gold Bonds dated May 1, 1923, $40,000.00 of its 7% Preferred Stock, and $25,000.00 of Common Stock.

[fol. 424] EXHIBIT 19-I

Modified Order No. 7496—Approved May 2, 1924

Shows that Order No. 7496, approved March 21, 1924, Exhibit 19-J herein, should be modified.

It is therefore ordered that Wabash Valley Electric Company be, and it is, authorized to issue and sell (at not less than ninety per cent (90%) of par) $120,000 of its 6% Gold Bonds dated May 1, 1923; $44,000.00 of its 7% Preferred Stock and $30,000.00 of its Common Stock.

EXHIBIT 19-K

Order No. 7422—Approved December 21, 1923

Shows permanent extensions and additions to its property and plant properly chargeable to capital account in the amount of $162,462.27 made between July 1, 1923, and September 30, 1923.

It contemplates making additions, extensions and improvements to its plant and system between October 1, 1923, and March 31, 1924, in the amount of $166,724.83.

The total expenditures as contemplated amount to $329,-187.10 from which is deducted expenditures estimated in

Commission order No. 7286 in the amount of $249,798.24, less certain contributions for extensions in the amount of $82.30, which leaves a total of $79,306.56.

It is therefore ordered that Wabash Valley Electric Company be, and it is, authorized to issue and sell (at not less than ninety per cent (90%) of par), $28,500.00 of Preferred Stock and $59,600.00 of Series A, 6% Twenty-five Year First Mortgage Bonds, dated May 1, 1923.

[fol. 425] EXHIBIT 19-L

Order No. 7441—Approved January 4, 1924

Shows authorized purchase by Wabash Valley Electric Company of the electric distribution and transmission system of the town of Kingman for the amount of $15,500.00.

It is therefore ordered that Wabash Valley Electric Company be, and it is, authorized to issue and sell (at not less than 90 per cent of par or face amount), $4,500.00 par value Common Stock and $12,500.00 face amount of Series A, First Mortgage Bonds, dated May 1, 1923, maturing in twenty-five years with interest at six per cent (6%).

EXHIBIT 20

Summary of Gross Income and Percentage Ratio Thereof to Plant Property, Franchises and Working Capital of Wabash Valley Electric Company for Period from May 31, 1923, to June 30, 1930

Gross Income Before Provision for Depreciation

Month of June, 1923	$21,011.85*
Years ended June 30, 1924	271,333.98
1925	306,747.80
Six months ended December 31, 1925	157,169.49*
Years ended December 31, 1926	343,499.85
1927	425,237.37
1928	440,534.42
1929	450,453.17
Six months ended June 30, 1930	163,831.11*
Annual average	$364,209.75

* Amounts of gross income for periods of less than one year have been adjusted to an annual basis in computing percentage ratios.

Plant Property and Franchises of Wabash Valley Electric Company After Deducting Retirements, but Before Deducting Depreciation

	Book value	Estimated working capital requirements	Total
June 30, 1923	$2,131,905.38	$121,321.00	$2,253,226.38
June 30, 1924	2,904,922.71	165,286.00	3,070,208.71
June 30, 1925	3,753,813.25	213,615.00	3,967,428.25
Dec. 31, 1925	3,918,294.27	222,947.00	4,141,241.27

	Book value	Estimated working capital requirements	Total
Dec. 31, 1926	4,079,151.66	232,128.00	4,311,279.66
Dec. 31, 1927	4,232,031.75	240,824.00	4,472,855.75
Dec. 31, 1928	4,498,551.87	255,974.00	4,754,525.87
Dec. 31, 1929	5,044,414.71	287,032.00	5,331,446.71
June 30, 1930	5,324,903.71	303,000.00	5,627,903.71
Average			$4,373,653.80

Percentage average ratio of gross income before provision for depreciation to plant property, franchises and working capital 8.33%

[fol. 426] EXHIBIT 21

Wabash Valley Electric Company—Electric Utility—Operating Balance Entire Company Year Ended December 31, 1928—(Consisting of 11 Pages)

Less:

(a) Reduction due to application of rates in Order No. 8894, to consumption by customers in Martinsville, and

(b) The estimated annual reduction in Clinton and Greencastle electric utility revenues as a result of rates filed with Public Service Commission December 13, 1928.

Balance available for return	$278,834.21
Deduction for estimated annual reduction in gross revenue from application of rates in Public Service Commission Order No. 8894	46,567.70
Balance	$232,266.51
Rate of return of $232,266.51 on $5,026,437.59	4.62%

Page 2

Martinsville Electric Utility Operating Balance for Year Ending December 31, 1928, Based on K. W. H. Cost at Gateway of $.024996 (See P. 4—Exhibit 21)—Local Revenue, Operating Expenses and Taxes for Year 1928—Spooner & Merrill's Appraised Value of Martinsville Local Electric Utility Property as of September 1, 1927, Plus Book Cost of Additions and Betterments to December 31, 1928

Gross revenue (per books)		$95,105.47
Operating expenses, taxes and depreciation:		
Power costs—2,511,125 K.W.H. at $.024996 (See p. 4)	$62,768.08	
Other expenses and taxes	29,015.81*	
Total operating expenses and taxes	$91,783.89	
Depreciation	4,896.90	
		96,680.79
Deficit		$1,575.32†
Deduction by application of Public Service Commission Order No. 8894 to energy consumption in year ended December 31, 1928		14,566.33†
Total deficit after application of rates in Public Service Commission Order No. 8894		$16,141.65†

[† Red in copy.]

* Includes item of $5,180.65 annual amortization charge for this rate case expense.

[fol. 427] Page 3

Martinsville Local Electric Utility Property Valuation per Spooner & Merrill's Appraisal of September 1, 1927, Plus Book Cost of Net Additions and Betterments to December 31, 1928, Plus Materials and Supplies, Working Cash, Cost of Financing and Going Value

	Cost of reproduction New	Depreciated
Total appraised property, less land	$97,963.00	$84,399.00
Net additions and betterments 9-1-27 to 12-31-28.	24,459.38	24,459.38
Total physical property, less land	$122,422.38	$108,858.38
Land	388.00	388.00
Total physical property, plus land	$122,810.38	$109,246.38
Materials and supplies		5,318.00
Working cash		3,623.00
Cost of financing		4,912.00
Going value, 15% of $122,810.38		18,421.00
Total value Martinsville local property		$141,520.38
Return and depreciation on above:		
Depreciation 4% of $122,422.38		$4,896.90
Return 8% of $141,520.38		11,321.63

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Energy Cost at Gateway of Cities and Towns Served from the Power System Based on Power System Operating Expenses and Taxes for the Year Ended December 31, 1928, and Return and Depreciation Based on Spooner & Merrill's Appraised Value of Power System Property as of September 1, 1927, Plus Book Cost of Net Additions and Betterments to December 31, 1928

Power System Operating Expenses and Taxes:

Power purchased and generated (80,453,483 KWH at $.0102305)	$823,082.80
Transmission	22,511.33
Transformation	27,213.16
General expense, taxes, etc	69,689.50
Total operating expenses and taxes	$942,496.79
Less: Gross revenue derived from the transmission and sale of energy to the Attica Electric Company and Northern Indiana Power Company	471,090.25
Net operating expenses and taxes	$471,406.54
Depreciation (4% of $2,785,839.16)	111,433.57
Return (8% of $3,367,974.16)	269,437.93
Net power system operating expenses, taxes, depreciation and return	$852,278.04
Unit cost per KWH delivered at gateway of Wabash Valley Electric Company cities and towns served from power system equals 34,096,423 KWH	$.024996
852,278.04	

[fol. 428] Page 5

Power System Property—Valuation per Spooner & Merrill's Appraisal of September 1, 1927, Plus Book Cost of Net Additions and Betterments to December 31, 1928, Plus Materials and Supplies, Working Cash, Cost of Financing and Going Value

	Cost of reproduction	
	New	Less depreciation
Total appraised physical property	$2,684,365.00	$2,485,123.00
Net additions and betterments 9-1-27 to 12-31-28	94,499.16	94,499.16
Total physical property, less land	$2,778,864.16	$2,579,622.16
Value of power system land	6,975.00	6,975.00
	$2,785,839.16	$2,586,597.16
Materials and supplies	.....	120,980.00
Fuel	.....	5,000.00
Working cash	.....	117,807.00
Cost of financing	.....	111,693.00
Going value (15% of $2,792,814.16)	.....	418,922.00
Total value of power system property	$2,785,839.16	$3,360,999.16

Return and depreciation based on above:

Depreciation 4% of $2,778,864.16	111,433.57
Return 8% of $3,360,999.16	269,437.93

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Operating Balance—Electric Utility as a Whole Based on Revenues, Operating Expenses and Taxes per Books for Year Ended December 31, 1928, and Spooner & Merrill's Appraisal of September 1, 1927, Plus Book Cost of Net Additions and Betterments to December 31, 1928

Gross revenue (exclusive of revenue from sale of electric energy to the Attica Electric Company and Northern Indiana Power Company. See contra deduction below)		$1,220,064.59
Operating expenses, taxes and depreciation:		
Power department expense—gross	$878,455.81	
Less: Gross revenue derived from sale of electrical energy to Attica Electric Company and Northern Indiana Power Company	471,090.25	
Net power department expense	$407,365.56	
Power department taxes	64,040.98	
Total power department expenses and taxes	$471,406.54	
Local department expenses and taxes	301,600.10	
Depreciation (4% of $4,205,593.59)	168,223.74	
Total operating expenses, taxes and depreciation		941,230.38
Balance available for return		$278,834.21

[fol. 429] Spooner & Merrill's Appraisal of September 1, 1927, Plus Additions and Betterments to December 31, 1928

	Cost of reproduction	
	New	Less depreciation
Physical property, less land	$4,205,593.59	$3,870,184.59
Land	10,673.00	10,673.00
Physical property, plus land	$4,216,266.59	$3,880,857.59
Materials and supplies	.....	184,000.00
Fuel	.....	5,000.00
Working cash	.....	155,500.00
Cost of financing	.....	168,640.00
Going concern value (15% of $4,216,266.59)	.....	632,440.00
Total value of electric utility property	$4,216,266.59	$5,026,437.59

Return:

Balance of $278,834.21 is equivalent to a return on $5,026,437.59 of ... 5.54%

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Energy Statement for Power System and Martinsville Local Year Ended December 31, 1928

Power system:

Energy delivered to gateway of Wabash Valley Electric Company cities and towns served directly from power system including Martinsville (on low side of transformer)	34,096,423 KWH (1)
Corrected for power loss—Average power system loss 10.7 per cent:	
$\frac{34,096,423}{89,223}$ KWH per cent efficiency x 100 equals	38,214,536 KWH (2)

Northern Indiana Power Company and Attica Electric Company:

Energy delivered to Northern Indiana Power Company at Lafayette and Attica Electric Company at Attica and Newton	37,687,220 KWH (3)
Corrected for power loss—Average power system loss 10.7 per cent:	
$\frac{37,687,220}{89,223}$ KWH per cent efficiency x 100 equals	42,238,947 KWH (4)

Martinsville local:

Energy delivered to Martinsville low side of sub-station transformer	2,511,125 KWH (5)
Energy delivered at customers' meters—Martinsville	2,148,179 KWH
Martinsville local distribution efficiency	85.55 per cent

[fol. 430] Page 8

Apportionment of Materials and Supplies and Working Cash Between Local and Power System Departments, December 31, 1928

Materials and supplies—total $184,000.00

Apportionment on basis of property value:

	Property value	Per cent	Apportionment of materials and supplies
Power system	$2,785,839.00	65.75	$120,980.00
Local—other than Martinsville local	1,307,617.00	31.36	57,702.00
Martinsville local	122,810.00	2.89	5,318.00
Total	$4,216,266.00	100.00	$184,000.00

Fuel—total requirement—all chargeable to power system	5,000.00
Working cash requirement (one and one-half month expenses and taxes)	155,500.00

Apportionment on basis of operating expenses and taxes:

	Operating expenses	Per cent	Apportionment of working cash
Power system operating expense and taxes	$942,496.79	75.76	$117,807.00
Local expenses and taxes other than Martinsville	272,584.29	21.91	34,070.00
Martinsville local expenses and taxes	29,015.81	2.33	3,623.00
Total	$1,244,096.89	100.00	$155,500.00

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Materials and Supplies

Total for year 1928	$2,206,353.91
Monthly average	183,862.83
Used	184,000.00

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Net expenditures for additions and betterments —September 1, 1927, to December 31, 1928— Martinsville local property	$24,459.38

Page 11

Net expenditures for additions, improvements and betterments to entire property from September 1, 1927, to December 31, 1928	$313,638.59

[fol. 431] EXHIBIT 22

Page 1

Operating Balance Entire Company Year Ended May 31, 1930, Giving Effect to Application of Rates Ordered by Public Service Commission Order No. 8894 to Consumption by Customers in Martinsville, Clinton, Greencastle, Jasonville and Sullivan

Gross revenue		$1,741,308.40
Operating expenses, taxes and depreciation:		
Power department expenses and taxes	$1,018,710.58	
Local electric utility expenses	$245,221.59	
Local electric utility taxes	39,943.55	
Total local expenses and taxes	$285,165.14	
Depreciation (4% of $4,783,971)	191,358.84	
	476,523.98	
		1,495,234.56
		246,073.84
Less: Deduction by application of Public Service Commission of Indiana Order No. 8894		64,058.75
Balance for return		$182,015.09
Rate of return on valuation of $5,556,091.00 equals		3.28%

1-A

Giving effect to a deduction in Martinsville local revenue from application of rates in Public Service Commission Order No. 8894, estimated to be $15,901.70, results in a deficit of..... $10,621.89*

[*Red in copy.]

1-B

Martinsville Operating Balance Year Ended May 31, 1930, (Based on KWH Cost at Gateway of $.024163) Local Revenue, Operating Expenses, Depreciation and Taxes for the Year Ended May 31, 1930, and Spooner & Merrill's Appraised Value of the Martinsville Local Electric Utility Property as of April 30, 1930

Gross revenue:		
Residence service		$32,349.60
Commercial service		30,746.85
Commercial power		34,389.38
Miscellaneous		284.59
Total revenue		$97,770.42
Operating expenses, taxes and depreication:		
Power cost 2,528,511 KWH at $.024163	$61,096.41	
Local expenses and taxes	26,860.16*	
* Includes item of $6,235.98 annual amortization charge for this rate case expense.		
Depreciation	4,534.04	
Total		92,490.61
Balance for return		$5,279.81
Rate of return on property value of $135,402.00		3.90%

[fol. 432]

Page 2-4

Martinsville—Detail of Operating Expenses and Taxes Year Ended May 31, 1930

Operating expenses and taxes:	
Power cost (See summary sheet)	$61,096.41
Distribution	5,607.82
Utilization	1,499.58
Commercial	2,255.72
Uncollectible accounts reserve charge	378.06
New business	2,590.39
General and miscellaneous	16,668.86
Indirect charges to construction (Cr.)	4,920.25*
Taxes	2,579.98
Total operating expenses and taxes	$87,956.57
Depreciation	4,534.04
Total operating expenses, taxes and depreciation	$92,490.61

[* Red in copy.]

Page 5

Martinsville Local Electric Utility Property Valuation Spooner & Merrill's Appraisal May 1, 1930, for Distribution System. Other Values Spooner & Merrill's September 1, 1927, Appraisal, Plus Gross Additions and Betterments April 30, 1930, at Book Cost Less Retirements for Same Period at Appraised Value

	Cost of reproduction	
	New	Less depreciation
Equipment installed in power plant for local use only—less land	$12,099.00	$10,560.00
Distribution system	95,865.00	85,193.00
General equipment	5,412.00	4,530.00
Total	$113,376.00	$100,283.00
Plus land	376.00	376.00
Total electric utility	$113,752.00	$100,659.00
Materials and supplies		10,000.00
Working cash		3,358.00
Going concern value (15% of $113,752.00)		17,063.00
Cost of financing		4,322.00
Total value electric utility property		$135,402.00
Depreciation 4% of $113,376.00 equals		$4,535.04
Return 8% of $135,402.00 equals		10,832.16

[fol. 433] Pages 6, 7, 8

Energy Cost at Gateway of Cities and Towns Served from the Power System Based on Power System Operating Expenses and Taxes for the Year Ended May 31, 1930, and Depreciation and Return Based on Spooner & Merrill's Appraised Value of Power System Property as of April 30, 1930, as Shown by Statement Next Following

Power system operating expenses and taxes:	
Power purchased and generated (85,295,839 K. W. H. at $.0101303)	$864,073.99
Transmission expense	29,125.12
Transformation expense	32,525.25
General and Miscellaneous	19,725.07
Taxes	75,942.04
Cost of energy used by other departments of the electric utility.	2,680.89*
Total operating expenses and taxes	$1,018,710.58
Less: Gross revenue derived from the transmission and sale of energy to the Attica Electric Company and Northern Indiana Power Company adjusted to rate of 1¼c per K. W. H.	441,761.95
Net operating expenses and taxes	$576,948.63
Depreciation 4% of $3,088,093.00	123,523.72
Return 8% of $3,637,650.00	291,012.00
Cost of energy at gateway of cities and towns	$991,484.35

Unit cost per K. W. H. at gateway of the cities and towns served from the power system:

$\frac{991,484.35}{41,032,962}$ K. W. H. delivered at gateway, etc., equals .... $.024163 per KWH

Power Department Operating Expenses and Taxes

Total electric steam power production	$10,042.31
Power purchased:	
Illinois Power and Light Company	37.50
Indiana Electric Corporation	847,784.37
Interstate Public Service Company	4,708.35
Terre Haute, Indianapolis & Eastern Traction Company	1,501.43
Total power purchased and generated	$864,073.99

[* Red in copy.]

[fol. 434] Page 10

Power System Property Valuation Spooner and Merrill's Appraisal September 1, 1927, Plus Gross Additions and Betterments to April 30, 1930, at Book Cost Less Retirements for Same Period at Appraised Value

	Cost of reproduction	
	New	Depreciation
Generating plants	$536,644.00	$424,282.00
Transmission lines	1,702,846.00	1,588,875.00
Substations	803,079.00	775,060.00
Carrier current and telephone equipment	52,712.00	50,169.00
General equipment	.....	.....
Total power system utility property (including land)	$3,095,281.00	$2,838,386.00
Less: Value of power system land, including above	7,188.00	7,188.00
Depreciable property	$3,088,093.00	$2,831,198.00
Plus: Value of land deducted above		7,188.00
Total physical property		$2,838,386.00
Materials and supplies		90,000.00
Working cash		127,352.00
Going concern value (15% of $3,095,281)		464,292.00
Cost of financing		117,620.00
Total value power system property		$3,637,650.00
Depreciation 4% of $3,088,093 equals		123,523.72
Return 8% of $3,637,650 equals		291,012.00

[fol. 435] Page 11

Operating Balance Entire Company Based on Revenues, Operating Expenses and Depreciation for the Year Ended May 31, 1930, and Spooner & Merrill's Appraised Value of the Electric Utility Property as Shown by Statement Next Following

Gross revenue (including revenue from the transmission and sale of energy to the Attica Electric Company and Northern Indiana Power Company adjusted to rate of 1¼c per K.W.H.)		$1,741,308.40
Operating expenses, taxes and depreciation:		
Power department expenses and taxes—gross.	$1,018,710.58	
Local electric utility expense	$245,221.59	
Local electric utility taxes	39,943.55	
Total local electric utility expenses and taxes	$285,165.14	
Depreciation 4% of $4,783,971	191,358.85	
Total operating expenses, taxes and depreciation		1,495,234.56
Balance available for return on the value of the electric utility property		$246,073.84

Rate of return:

Balance of $246,073.84 shown above is equivalent to a return of 4.43 per cent on the depreciated property value of $5,556,091.00.

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Property Valuation—Entire Electric Utility—Spooner & Merrill's Appraisal September 1, 1927, Plus Gross Additions and Betterments to April 30, 1930, at Book Cost Less Retirements for Same Period at Appraised Value

		Cost of reproduction	
		New	Depreciation
Local property (including Martinsville)		$1,699,078	$1,513,366
Power system property		3,095,281	2,838,386
Total electric utility property (including land)		$4,794,359	$4,351,752
Less Land:			
Power System	$7,188		
Local	3,200	10,388	10,388
Depreciable property		$4,783,971	$4,341,364
Materials and supplies			140,000
Working cash			163,000
Going concern value (15% of $4,794,359)			719,154
Cost of financing			182,185
Total value electric utility property			$5,556,091
Return 8% of $5,556,091 equals			444,487.28
Depreciation 4% of $4,873,971 equals			191,358.84

[fol. 436] Page 13

Energy Statement—Power System and Martinsville Local, Year Ended May 31, 1930

	K. W. H. delivered	K. W. H. purchased and generated
Power System:		
Northern Indiana Power Company	29,136,300	.....
Corrected for 2.1% line loss	.....	29,761,287
Attica Electric Company	6,204,652	.....
Corrected for 8.75% line and transformer loss	.....	6,799,618
Total Northern Indiana Power Company and Attica Electric Company	35,340,952	36,560,905
Wabash Valley Electric Company cities, towns, etc., Clinton-Lafayette Line	3,780,800	.....
Corrected for 12.4% line and transformer loss	.....	4,315,982
Other Wabash Valley Electric Company cities, towns, etc.	37,252,162	.....
Corrected for 16.133% line and transformer loss.	.....	44,418,952
Total Wabash Valley Electric Company cities, towns, etc.	41,032,962	48,734,934
Total K. W. H. delivered	76,373,914	.....
Total K. W. H. purchased and generated	.....	85,295,839
Martinsville local:		
Energy delivered to city of Martinsville on low side of substation transformers		2,528,511
Energy delivered to customers' meters in city of Martinsville, Indiana		2,162,353
Distribution loss—K. W. H.		366,158
Per cent distribution loss—Martinsville		14.48%

Page 14

Requirement for Material and Supplies and Working Cash and Apportionment of Same Between Local and Power System Departments May 31, 1930

Material and Supplies:

Total requirement		$140,000.00
Apportionment:		
Power system	$90,000.00	
Local, other than Martinsville	40,000.00	
Martinsville local	10,000.00	

[fol. 437] Working Cash:

Total requirement based on one and one-half months operating expenses and taxes—1/8 of $1,303,875.72 equals	$163,000.00

Apportionment:

Basis of local expenses and taxes.

	Operating expense	Per cent	Apportionment
Local, other than Martinsville	$258,304.98	19.81	$32,290.00
Martinsville local	26,860.16	2.06	3,358.00
Power system	1,018,710.58	78.13	127,352.00
Total	$1,303,875.72	100.00	$163,000.00

EXHIBIT 23-A

Itemized Statement of Undistributed Construction Costs Included by Abbett in Appraisal of Power System Property.

EXHIBIT 23-B

Same Included by Abbett in Appraisal of Martinsville Local and Rural Property.

EXHIBIT 24

Contract Between Husselman and City of Martinsville, Dated March 29, 1930, Provides for Payment of $250 on April 7, 1930, and a Further Sum Equal to 25% of Any Rate Reduction Computed on Basis of the 12 Months Preceding the Date when the Reduced Rates Became Effective.

EXHIBIT 25

Estimate of Cost of Diesel Electric Generating Plant for Martinsville
(Stone and Webster)

Plan 1:	
Total cost of plant, including going value, etc.	$305,000
Plan 2:	
Total cost of plant, including going value, etc. with addition of air filters	350,000

	Plan 1	Plan 2
Total cost per K. W. H.	3.167c	3.162c
Change per K. W. H. per ¼c change in price of oil	.0286c	.0287c

[fol. 438] EXHIBIT 26

Reconciliation of Differences Between Appraisals of Power System by Spooner and Merrill and Public Service Commission of Indiana

	Cost of reproduction less depreciation		
	P. S. C. I. Dec. 31, 1929	S. & M. April 30, 1930	Total difference
Generating plants	$364,313	$424,282	$59,969
High voltage substation	673,745	737,386	63,641
High voltage transmission	1,337,308	1,409,227	71,919
Telegraph and telephone	53,029	50,169	2,860*
Low voltage substation	13,406	37,674	24,268
Low voltage transmission	100,544	178,499	77,955
	$2,542,345	$2,837,237	$294,892
[*Red in copy.]			
Martinsville feeder allocated to power system	.....	1,149	1,149
Working cash	103,727	217,352	113,625
Going concern value	222,294	464,292	241,998
Cost of financing	None allowed	117,620	117,620
	$2,868,366	$3,637,650	$769,284

EXHIBIT 27

Comparison of Appraisals by Spooner and Merrill and Public Service Commission of Indiana of Martinsville Local Electric Distribution as of May 1, 1930 Inventory

	Cost of reproduction less depreciation May 1, 1930		
	P. S. C. I. Priced May 1, 1930	S. & M. Priced May 1, 1929	Difference
General plant property and equipment, including general overhead	$72,757	$90,872	$18,115
Power plant land and structures allocated to local use	not added	10,936	10,936
		$101,808	
Less feeder to Morgantown line	not deducted	1,149*	1,149*
	$72,757	$100,659	
Materials, supplies and working cash	2,968	13,358	10,390
Going concern value	7,275	17,063	9,788
	$83,000	$131,080	
Cost of financing	not added	4,322	4,322
Total cost of reproduction less depreciation as of May 1, 1930	$83,000	$135,402	$52,402

[*Red in copy.]

NOTE.—Spooner and Merrill prices May 1, 1929. Public Service Commission of Indiana prices May 1, 1930.

[fol. 439] **EXHIBIT 28**

Pages 1, 1-A, 1-B

Operating Balance Entire Electrical System Year Ended May 31, 1930, Giving Effect to Application of Rates Ordered by Public Service Commission Order No. 8894 to Consumption by Customers in Martinsville, Clinton, Greencastle, Jasonville and Sullivan for Year Ended May 31, 1930—Allocation of Clinton-Lafayette Transmission Line Method—Contains 16 Pages.

Gross revenue	$1,299,546.45
Operating expenses, taxes and depreciation	1,071,012.94
Balance available for return	$228,534.51
Less: Estimated annual reduction in revenue by application of rates of P. S. C. I. order No. 8894 to consumption in Martinsville, Clinton, Greencastle, Jasonville and Sullivan for year ended May 31, 1930	64,058.75
	$164,475.76
Rate of return of $164,475.76 on property value of $4,650,112 equals	3.54%
Giving effect to a deduction in Martinsville local revenue from application of rates in Public Service Commission Order No. 8894, estimated to be $15,901.70, results in a deficit of	

Martinsville Operating Balance Year Ended May 31, 1930 (Based on KWH Cost at Gateway of $.022897) Local Revenue, Operating Expenses, Depreciation and Taxes for Year Ended May 31, 1930, and Spooner and Merrill's Appraised Value of Martinsville Local Electric Utility as of April 30, 1930.

Gross Revenue:

Residence service	$32,349.60
Commercial service	30,746.85
Commercial power	34,389.38
Miscellaneous	284.59
Total gross revenue	$97,770.42

Operating expenses, taxes and depreciation:

Power cost—2,528,511 KWH at $.022897	$57,895.32	
Miscellaneous	24,280.18	
Taxes	2,579.98	
Depreciation	4,534.04	
Total		89,289.52
Balance		$8,480.90
Balance of $8,480.90 is equivalent to a return on property value of $135,402 of		6.26%

[fol. 440] **Pages 2, 3, 4, 5**

Detail of Operating Expenses and Taxes Year Ended May 31, 1930

Operating expenses and taxes:

Power cost (see summary sheet)	$57,895.32
Distribution	5,607.82
Utilization	1,499.58
Commercial	2,255.72
Uncollectible Accounts reserve charge	578.06
New business	2,590.39
General and miscellaneous	16,668.86
Indirect charges to construction (Cr.)	4,920.25*
Taxes	2,579.98
Total operating expenses and taxes	$87,514.08
Depreciation	4,534.04
Total operating expenses, taxes and depreciation	$89,289.52

[*Red in copy.]

Martinsville Local Electric Property Valuation Spooner and Merrill's Appraisal May 1, 1930, for Distribution System. Other Values Spooner and Merrill's September 1, 1927, Appraisal Plus Gross Additions and Betterments April 30, 1930, at Book Cost Less Retirements for Same Period at Appraised Value

	Cost of reproduction	
	New	Less depreciation
Power plant property for local use only—less land	$12,099	$10,560
Distribution system	95,865	85,193
General equipment	5,412	4,530
Total local electric utility property—less land	$113,376	$100,283
Plus land	376	376
	$113,752	$100,659
Materials and supplies		10,000
Working cash		3,338
Going concern value (15% of $113,752)		17,063
Cost of financing (3.8% of $113,752)		4,322
Total value electric utility property		$135,402
Depreciation 4% of $113,376 equals		4,535.04
Return 8% of $135,402 equals		10,832.16

[fol. 441] Pages 6, 7, 8

Energy Cost at Gateway of Wabash Valley Electric Company Cities and Towns Served from the Power System Based on Power System Operating Expenses and Taxes for the Year Ended May 31, 1930, and Depreciation and Return Based on Spooner and Merrill's Appraised Value of Power System Property as of April 30, 1930

Power system operating expenses and taxes:	
Power purchased and generated (85,295,839 K. W. H. at $.0101303)	$864,073.99
Transmission expense	29,125.12
Transformation expense	32,525.25
General and miscellaneous	19,725.07
Taxes	75,942.04
Cost of energy used by other departments	2,680.89*
	$1,018,710.58
[* Red in copy.]	
Less: Operating expenses and taxes on property allocated to use by Northern Indiana Power Company and Attica Electric Company per detailed statement following	393,855.94
Net operating expenses and taxes	$624,854.64
Depreciation 4% of $2,328,951	93,158.04
Return 8% of $2,731,671	218,533.68
Cost of energy at gateway of cities and towns	$936,546.36

$936,546.36 cost delivered at gateway, etc.
41,032,962 K.W.H. equals ..... $.022897 per K.W.H.

Details of Power Department Operating Expenses and Taxes Year Ended May 31, 1930

Power generated and purchased:	
Steam power generation	$10,042.34
Power purchased:	
Illinois Power and Light Company	37.50
Indiana Electric Corporation	847,784.37
Interstate Public Service Company	4,708.35
Terre Haute, Indianapolis & Eastern Traction Company	1,501.43
Total power purchased	$854,031.65
Total power generated and purchased	864,073.99

[fol. 442] Page 10

Power System Property Valuation Spooner and Merrill's Appraisal September 1, 1927, Plus Gross Additions and Betterments to April 30, 1930, at Book Cost Less Retirements for Same Period at Appraised Value Less Property Allocated to Use of Northern Indiana Power Company and Attica Electric Company

	Cost of reproduction	
	New	Depreciation
Generating plants	$536,644	$424,282
Transmission lines	1,702,846	1,588,875
Substations	803,079	775,060
Carrier Current and Telephone equipment	52,712	50,169
General equipment	.....	.....
Total power system utility property (including land)	$3,095,281	$2,838,386
Less: Value of power system land, including above	7,188	7,188
Depreciable property	$3,088,093	$2,831,198
Plus: Value of land deducted above	.....	7,188
Total physical property	.....	$2,838,386
Materials and supplies	.....	90,000
Working cash	.....	127,352
Going concern value (15% of $3,095,281)	.....	464,292
Cost of financing (3.8% of $3,095,281)	.....	117,620
Total value power system property	.....	$3,637,650
Less: Value allocated to Northern Indiana Power Company and Attica Electric Company	759,142	905,979
Basis for depreciation and retirement on remainder of power system property	$2,328,951	$2,731,671
Depreciation 4% of $2,328,951 equals		93,158.04
Return 8% of $2,731,671 equals		218,533.68

[fol. 443] Page 11

Operating Balance Entire Company Based on Revenues, Operating Expenses and Depreciation for the Year Ended May 31, 1930, and Spooner and Merrill's Appraised Value of the Electric Utility Property

Gross revenue (exclusive of revenue from the transmission and sale of energy to the Attica Electric Company and Northern Indiana Power Company)	$1,299,546.45

Operating expenses, taxes and depreciation:		
Power department expenses and taxes—gross.	$1,018,710.58	
Less: Operating expenses and taxes on property allocated to use by Northern Indiana Power Company and Attica Electric Company (see detail statement)	393,855.94	
Net power department expenses and taxes	$624,854.64	
Local electric utility expense	$245,221.59	
Local electric utility taxes	39,943.55	
Total local electric utility expenses and taxes	285,165.14	
Depreciation 4% of $4,024,829	160,993.16	
Total operating expenses, taxes and depreciation		1,071,012.94
Balance available for return on the electric utility property		$228,534.51

Rate of return:

Balance of $228,534.51 shown above is equivalent to a return of 4.91 per cent on the depreciated property value of $4,650,112.

[fol. 444] Page 12

Entire Electric System Allocation of Costs of Operation, Maintenance and Taxes, Clinton-Lafayette Transmission Line and Transformer Stations Connected Thereto, Expenses, Etc., for Year Ended May 31, 1930

		Allocation	
	Total expenses, etc.	Wabash Valley Elec. Co.	Attica El. Co. Northern Ind. Power Company
Transformer Stations:			
Attica (Direct)	$3,948.86	$.....	$3,948.86
Lafayette "	934.81	.....	934.81
Newton "	261.39	.....	261.39
Transmission expense:	7,293.97		
Allocated to Wabash Valley Electric Company—10.56%	.....	770.24	.....
Allocated to Northern Indiana Power Company and Attica Electric Company—89.44%	.....	.....	6,523.73
Taxes:	17,863.86		
Allocated to Substation service Northern Indiana Power Company and Attica Electric Company (Direct)	.....	.....	5,688.06
Allocated to Wabash Valley Electric Company account transmission line—10.56%	.....	1,285.76	.....
Allocated to Northern Indiana Power Company and Attica Electric Company account transmission line—89.44%	.....	.....	10,890.04
Total	$30,302.89	$2,056.00	$28,246.89
Purchase cost of energy for Northern Indiana Power Company and Attica Electric Company 36,560,905 K.W.H. at $.01	.....	.....	365,609.05
Total expenses and taxes			$393,855.94

[fol. 445] Page 13

Entire Electric Utility Spooner and Merrill's Appraisal September 1, 1927, Plus Gross Additions and Betterments to April 30, 1930, at Book Cost, Less Retirements for Same Period at Appraised Value, Less Property Allocated to Use of Northern Indiana Power Company and Attica Electric Company

		Cost of reproduction	
		New	Depreciation
Local property (including Martinsville)		$1,699,078	$1,513,366
Power system property		3,095,281	2,838,386
Total electric utility property (including land)		$4,794,359	$4,351,752
Less land:			
Power system	$7,188		
Local	3,200		
		10,388	10,388
Depreciable property		$4,783,971	$4,341,364
Plus land deducted above			10,388
Total electric utility property			$4,351,752
Materials and supplies			140,000
Working cash			163,000
Going concern value (15% of $4,794,359)			719,154
Cost of financing (3.8% of $4,794,359)			182,185
Total value electric utility property			$5,556,091
Less: Value allocated to Northern Indiana Power Company and Attica Electric Company		759,142	905,979
Total value electric utility property used for Wabash Valley Electric Company business		$4,024,829	$4,650,112
Depreciation 4% of $4,024,829 equals			160,993.16
Return 8% of $4,650,112 equals			372,008.96

[fol. 446] Page 14

Investment in Transmission Line and Substation to Serve Attica Electric Company, Northern Indiana Power Company and Wabash Valley Electric Company Cities and Customers on Clinton-Lafayette Line

	Cost of reproduction	
	New	Depreciation
Used entirely for Attica Electric Company and Northern Indiana Power Company:		
Lafayette Substation	$137,302	$134,556
Attica "	54,480	53,390
Newton "	25,907	24,612
	$217,689	$212,558
Materials and supplies		6,741
Working cash		643
Going concern (15% of $217,689)		32,653
Cost of financing (3.8% of $217,689)		8,272
		$260,867

	Cost of reproduction	
	New	Depreciation
Used jointly by Wabash Valley Electric Company and Power Purchasing Companies:		
Clinton-Lafayette Line	$544,550	$528,842
Covington-Danville Line	42,918	42,060
Carrier current, Attica and Lafayette	17,913	17,017
	$605,381	$587,919
Materials and supplies		18,639
Working cash		910
Going concern value (15% of $605,381)		90,807
Cost of financing (3.8% of $605,381)		23,004
		$721,279

Wabash Valley Electric Company delivers or wholesales to cities and towns 4,315,982 K. W. H. of a total of 40,876,887 K. W. H. input to the Clinton-Lafayette Line at Clinton. This is 10.56% of the total input.

Allocate to Wabash Valley Electric Co.	10.56% x $605,381 = $ 63,928	Basis for depreciation.
	10.56% x $721,279 = $ 76,167	Basis for return.
Allocate to Attica Electric Company and Northern Indiana Power Com-Company	89.44% x $605,381 = $541,453	Basis for depreciation.
	89.44% x $721,279 = $645,112	Basis for return.

Summary

	Basis for depreciation	Basis for return
Lafayette, Attica and Newton substation	$217,689	$260,867
Clinton-Lafayette Line allocated to Northern Indiana Power Company and Attica Electric Company	541,453	645,112
Total allocated to use by Northern Indiana Power Company and Attica Electric Company	$759,142	$905,979

[fol. 447] Page 15

Energy Statement—Power System and Martinsville Local, Year Ended May 31, 1930

	K.W.H. delivered	K.W.H. purchased and generated
Power system:		
Northern Indiana Power Company	29,136,300	
Corrected for 2.1% line loss		29,761,287
Attica Electric Company	6,204,652	
Corrected for 8.75% line and transformer loss		6,799,618
Total Northern Indiana Power Company and Attica Electric Company	35,340,952	36,560,905
Wabash Valley Electric Company cities, towns, etc., Clinton-Lafayette line	3,780,800	
Corrected for 12.4% line and transformer loss		4,315,982
Other Wabash Valley Electric Company cities, towns, etc	37,252,162	
Corrected for 16.135% line and transformer loss		44,418,952

	K.W.H. delivered	K.W.H. purchased and generated
Total Wabash Valley Electric Company cities, towns, etc.	41,032,962	48,734,934
Total K.W.H. delivered	76,373,914	
Total K.W.H. purchased and generated		85,295,839
Martinsville Local:		
Energy delivered to city of Martinsville on low side of substation transformers		2,528,511
Energy delivered to customers' meters in city of Martinsville, Indiana		2,162,353
Distribution loss—K.W.H.		366,158
Per cent distribution loss—Martinsville		14.48%

[fol. 448] Page 16

Requirement for Material and Supplies and Working Cash and Apportionment of Same Between Local and Power System Departments May 31, 1930

Materials and Supplies:		
Total requirement (based on average book investment)		$140,000.00
Apportionment (basis of property values):		
Power system	$90,000	
Local, other than Martinsville	40,000	
Martinsville local	10,000	
Working Cash:		
Total requirement based on one and one-half months operating expenses and taxes—1/8 of $1,303,875.72 equals		$163,000.00

Apportionment:

Basis of local expenses and taxes.

	Operating expense	Per cent	Apportionment
Local, other than Martinsville	$258,304.98	19.81	$32,290.00
Martinsville local	26,860.16	2.06	3,358.00
Power system	1,018,710.58	78.13	127,352.00
Total	$1,303,875.72	100.00	$163,000.00

Exhibit 29

Correction and Adjustment on Apportionment of Working Cash, Material and Supplies (Defendants' Ex. 102) for Wabash Valley Electric Company

Company expense for 1929, after deducting power purchases and taxes	$350,695.09
Martinsville local expense after deducting power expense, taxes, labor and indirect charges to construction	23,061.57
Proportion of Martinsville to system expense	6.58%
Working cash estimate for whole system based on one and one-half months	43,837.00
Proper allotment for Martinsville on 6.58% ratio	2,884.00
Material and supplies	8,349.00
Proper total working capital—Martinsville	$11,233.00
Defendants' allowance—Martinsville—(Ex. 101)	2,968.00

[fol. 449] **Material and Supplies:**

Balances on hand at Martinsville, December 31, 1929:		
Merchandise		$3,595.26
Meters		1,270.06
Transformers		1,652.05
Electric line material	$4,504.60	
Less estimated value of materials used for power system purposes	1,200.00	
Remainder local use		3,304.60
Total local material and supplies		$9,821.97
Allocation to Martinsville and Martinsville outlying territory:		
Martinsville (85% Abbett's estimate)		$8,349.00
Martinsville outlying (15% Abbett's estimate)		1,473.00
Total		$9,822.00

EXHIBIT 30

Allocation of Portion of Power System Property Value to Northern Indiana Power Company and Attica Electric Company Based on Demands of These Systems (Using Commission's Exhibits 104, 105 and 106 as Basis for Total System Demands and Property Values)

System maximum demand September 4, 1929 (Ex. 106)		22,518 K.W.H.
10% adjustment for losses		20,267 K.W.H.
Maximum demand Northern Indiana Power Company September 30, 1929		12,800 K.W.
Maximum demand Attica Electric Company July 31, 1929		1,456 K.W.
Percentage of Northern Indiana to system adjusted demand	63.1%	
Percentage of Attica Electric to system adjusted demand	7.2%	

	System	Northern Indiana	Attica
Depreciation base (ex. 104)	$2,542,345	$1,604,220	$183,049
Return base (Ex. 104)	2,868,366	1,809,939	206,522
Unit cost per K.W.H.		$.0195	$.0154

[fol. 450] EXHIBIT 31

Correction and Adjustment of Defendants' Exhibit 130 to Correspond with Facts as to Contract for Power Between Indiana Electric Corporation and Columbia Power Company

Increase in demand of 2,650 K.W. as in Exhibit 130 would result in annual increase for life of contract of	$74,412
Cost of producing foregoing K.W. in Clinton, Sullivan and Martinsville	39,633
Annual saving	$34,779
Capitalization of saving at 8% gives plants an economic value of	$434,738

EXHIBIT 32

Correction and Adjustment of Commission's Exhibit 106

System maximum demand of Wabash Valley Electric Company on September 4, 1929		22,518 K.W.
Adjustment of 10% for losses		20,267 K.W.
Per cent Martinsville maximum demand to consumer maximum demand	$\frac{678}{20267}$ =	3.35%
Total cost of reproduction of system including generating plants (Ex. 104)		$2,868,366
Portion of system allocated to Martinsville on basis of 3.35%		96,090

EXHIBIT 33

Comparative Calculation Based on Defendants' Exhibit 106

Maximum demand for system September 4, 1929	22,518 K.W.
Less 10% loss	20,266 K.W.
Less interchange companies demand	8,098 K.W.
Net demand of balance of consumers at point of delivery	12,168 K.W.
Maximum demand by Martinsville at point of delivery November, 1929	678 K.W.
Ratio of Martinsville demand to system demand $\frac{678}{12,618}$ =	5.57%

EXHIBIT 34

Stipulation

Only inventory and appraisal offered in evidence at the hearing before the Public Service Commission of Indiana covering plaintiff's entire electrical property was that of Spooner & Merrill, made as of September 1, 1927.

The appraisal by Spooner & Merrill so offered in evidence showed the reproduction value less observed depreciation of plaintiff's entire electrical property to be $4,580,718 on September 1, 1927, and the reproduction value less observed depreciation of the power system property included therein was $3,198,139.00.

The only other evidence at said hearing of the value of plaintiff's entire electrical property was the testimony of the appraisal engineers relative to their inventories and appraisals and that of book cost as of August 31, 1927, which on said date amounted to $4,277,629.67 not including going value, materials and supplies or working cash.

Abstract of Defendants' Exhibits

[fol. 451] EXHIBIT 100

Appraisal of Martinsville Local Electric Property by Engineering Department of Public Service Commission—Consists of 55 Sheets of Itemized Inventory and Appraisal. Inventory and Prices as of May 1, 1930

	Cost of reproduction	
	New	Depreciated
Poles, towers and fixtures	$20,670	$16,532
Overhead conductors	12,928	11,636
Services	4,963	3,970
Line transformers	13,920	11,832
Transformer installation	1,879	1,597
Consumers meters	14,977	12,713
Meter installations	767	652
Office equipment	2,699	2,159
Shop equipment	515	412
Transportation equipment	1,516	970
Laboratory equipment	564	479
Total land, plant and equipment	$75,398	$62,952
Total undistributed construction costs	9,939	8,297
Administration and legal	1,508	1,508
Total	$86,845	$72,757
Materials and supplies	8,684*	8,684

* This exhibit (sheet 26) shows that the average electric materials and supplies kept at Martinsville in 1929, not including plant supplies, was $10,217, and Commission's engineer Abbett allocated 85% of this, or $8,684, to Martinsville.

Exhibit 101

Cost of reproduction depreciated (from Exh. 100)	72,757
Cash working capital and materials and supplies	2,968
Going value	7,275
Total cost new, depreciated	$83,000

Exhibit 102

Working Cash Capital, Materials and Supplies for System—Public Service Commission

Total operating expenses, 1929, excluding power cost and taxes	$350,695.09
Working cash—1-1/2 months' operating expense	43,837.00
Materials and supplies	164,437.00
Total	$208,274.00
Total property of system as shown by balance sheet December 31, 1929	$5,102,133.91
Percentage of materials, supplies and cash to property $\frac{208,274}{5,102,133}$	4.08%

[fol. 452]

Exhibit 103

Appraisal of Power System Property by Engineering Department of Public Service Commission—Consists of over 500 Sheets. Inventory as of September 1, 1927, Net Additions to December 31, 1929, Prices as of March, 1929

	Cost of reproduction	
	New	Depreciated
Generating plants	$516,600	$309,388
High voltage substations	482,467	433,609
" " transmission	986,309	892,877
Carrier current, telephone	37,253	31,984
Low voltage substation	14,289	11,423
" " transmission	101,083	86,249
Total land, labor and equipment	$2,138,001	$1,765,530
Undistributed Construction Costs Omissions and contingencies	$36,371	$30,035
Engineering costs including architects	105,733	87,314
Law expenditures during construction	5,288	4,367
Miscellaneous	10,575	8,733
Taxes during construction	17,023	14,058
Interest during construction	85,850	70,895
Superintendence of construction	34,636	28,602
Total undistributed construction costs	$295,476	$244,004
Total cost of reproduction of tangible fixed property	2,433,477	2,009,534
Administration and legal	42,760	42,760
Total	$2,476,237	$2,052,294
Net capital additions September 1, 1927 to December 31, 1929		490,051
Total—Power system as of December 31, 1929		$2,542,345

(Without working capital and going value—for these items see Exh. 104.)

Generating plant, Sullivan, reproduction cost depreciated $39,165

[fol. 453] EXHIBIT 104

Appraisal of Power System—Public Service Commission

Cost of reproduction of power system depreciated as of December 31, 1929 exclusive of power plants	$2,222,942
Working cash, materials and supplies 4.08%	90,696
Going value 10%	222,294
Total depreciated as of December 31, 1929 less power plants	$2,535,932
Cost of reproduction depreciated as of December 31, 1929, including power plants, and structural overheads	2,542,345
Working cash, materials and supplies 4.08%	103,727
Going value same as power system less power plants	222,294
Total depreciated as of December 31, 1929 including power plants	$2,868,366

EXHIBIT 105

Appraisal of Generating Plants—Public Service Commission

Appraisal as of September 1, 1927	$309,388
Total overhead 15%	46,408
Total	$355,796
Net additions to December 31, 1929	9,480
Total plants as of December 31, 1929	$365,276
Less:	
Land structures, equipment in generating plants used and useful to power system as of December 31, 1929	45,873
Non-useful portion of generating plants	$319,403
Appraisal of system property including generating plants as of December 31, 1929	$2,542,345
Less non-useful portion of generating plants	319,403
Cost of reproduction as of December 31, 1929 of power system exclusive of power plants, materials and supplies, going value and working cash	$2,222,942

[fol. 454] EXHIBIT 106

Allocation of Power System to Martinsville Based on Demands—Public Service Commission

Maximum system demand—September 4, 1929	22,518 KW
Martinsville demand same date and time	458 KW
Maximum Martinsville demand November, 1929	678 KW
Ratio of maximum system and Martinsville demands $\frac{678}{22,518}$	3.01%
Total cost of reproduction of system depreciated (Exhibit 104) including generating plants	$2,868,366
Power system properties allocated to Martinsville on basis of 3.01%	$86,338
Martinsville local	83,000
Total rate base—Martinsville	$169,338

[fol. 455] EXHIBIT 107

Report by Accounting Department of Public Service Commission of Indiana of Examination of Records of Wabash Valley Electric Company—for Period from January 1, 1929 to December 31, 1929

Page 13: Material and supplies charged to Martinsville District

Regular	$26,159.39
Fuel	713.24
Stores, freight, handling	2,191.68
Total	$29,064.31

Page 27: Operating Revenues and Expenses, Martinsville Electric

Revenues:

Residence lighting	$31,254.69
Commercial lighting	31,127.89
Standard and large power	35,773.44
Current used by company and miscellaneous revenues	1,394.89
Total revenue 1929	$99,550.91

Operating Expenses, Martinsville:

Power 2,532,798 KWH @ .0133 (See p. 47)	$32,800.82
Distribution	8,496.08
Consumption	1,475.80
Commercial	2,671.10
New Business	3,038.92
General (including $5,180.65 annual amortization of their rate case expense)	14,911.92
Taxes	2,527.23
Total operating expenses excluding depreciation, 1929	$65,921.87
Net operating revenue before depreciation—Martinsville, 1929	$33,629.04
Less non-operating revenue (appliance sales)	503.56
Gross income before depreciation, 1929	$33,125.48
Page 29: Power expense apportioned to Martinsville, 1929	33,726.33
Less: Current used by company	925.51*
Martinsville power expense 1929	$32,800.82

[* Red in copy.]

Page 40: Net operating revenue whole electric system, 1929 .... $393,749.59

Page 45: Current generated, 1929:

Clinton	96,640 KWH
Sullivan	6,300 "
Martinsville	20,530 "
Total generated	123,470

[fol. 456]

Current purchased, 1929:

Indiana Electric Corporation	83,781,646 KWH
T. H. I. & E. Traction Company	39,316 "
Interstate Public Service Co.	312,960 "
Illinois Power & Light Co.	3,000 "
Total purchased	84,136,922 KWH
Total generated and purchased	84,260,392 KWH

Substation output:

Total substation output, 1929 including Martinsville	75,811,628 KWH
Martinsville substation output, 1929	2,532,798 KWH
Loss station to substation output	8,448,764
Loss station to sales	12,017,602
Loss substation to sales	3,568,838
Percentage of loss station to substation output	10.0269%
Percentage of loss station to sales	14.2624%
Percentage of loss substation to sales	4.7075%
Page 47: Total substation readings, 1929	75,811,628 KWH
Deduct current purchased direct	51,668 "
	75,759,960 KWH
Martinsville readings, 1929	2,532,798 KWH
Total power costs, 1929	$1,000,551.54
Deduct direct purchases	1,499.61
	$999,051.93
Total apportioned to Martinsville	$33,726.33*

* This figure was reached by the Commission's auditor who prepared this exhibit by apportioning to Martinsville that proportionate part of total power system cost which Martinsville substation meter readings bears to total substation meter readings.

KWH sold to Martinsville	2,186,564 KWH
Cost per KWH sold	$.0154
Cost per KWH substation input	.0133**

** This figure was reached by the Commission's auditor who prepared this exhibit by dividing the total power system cost by the total of all substation meter readings.

[fol. 457] Wabash Valley Electric Company

Balance Sheet—Entire Company

Page 9

Assets

	Jan. 1, 1929	Dec. 31, 1929
Property & plant:		
Property and plant July 1, 1922	$1,391,340.05	$1,391,340.05
Martinsville & Roachdale properties	588,636.67	588,636.67
Additions, Improvements and Betterments 7-1 to 12-31-22	37,999.23	37,999.23
Additions, Improvements and Betterments 1-1 to 12-31-23	112,470.73	112,470.73
Additions, Improvements and Betterments subsequent to December 31, 1923	2,297,598.48	2,578,769.94
Investment work in progress	51,903.03	370,899.15
Organization	5,136.90	5,136.90
Kingman properties	16,881.24	16,881.24
Totals	$4,501,966.33	$5,102,133.91
Investments:		
Starco Coal Company	$500.00	$500.00
Totals	$500.00	$500.00
Treasury Securities:		
Treasury Stock—Common	$256,000.00	$256,000.00
Treasury Stock—Preferred	100,000.00	100,000.00
Totals	$356,000.00	$356,000.00

	Jan. 1, 1929	Dec. 31, 1929
Current Assets:		
Cash in Bank	$65,408.52	$22,303.10
Cash on Hand	4,775.00	4,163.00
Special Deposits	.....	5,504.69
Notes Receivable	.....	1,200.00
Accounts Receivable	180,163.09	226,938.38
Material and Supplies	177,977.92	164,437.56
Totals	$428,324.53	$424,546.73
Prepaid Accounts:		
Prepaid insurance	$5,910.85	$6,329.92
Prepaid interest	905.02	.....
Totals	$6,815.87	$6,329.92
Deferred and Suspended Accounts:		
Unamortized Discounts and Expense 6% Gold Bonds	$246,167.97	$233,435.13
Unamortized Discount and Expense common stock	30,500.00	30,500.00
Unamortized discount and expense preferred stock	48,460.16	45,953.60
Deferred Debit Items	348,998.95	386,013.34
Maintenance Work in Progress	504.42	9,392.50
Mortgage Reserve	100,402.10	150,753.34
Totals	$775,033.60	$856,047.91
Total Assets	$6,068,640.33	$6,745,558.47

[fol. 458] Page 10

Liabilities

Capital Liabilities:		
Capital stock—common	$876,000.00	$876,000.00
Capital stock—preferred	856,000.00	856,000.00
Totals	$1,732,000.00	$1,732,000.00
Funded Debt:		
Wabash Valley Electric Company First Mortgage 6% Gold Bonds as of May 1, 1948	$2,822,900.00	$2,822,900.00
Totals	$2,822,900.00	$2,822,900.00
Current Liabilities:		
Notes payable	$65,097.55	.....
Accounts payable	34,774.33	$37,885.61
American Public Utilities Company Insurance account	804.25	.....
Accounts payable—inter company	31,029.64	515,025.34
Consumers deposits	22,050.64	21,298.51
Insurance trustees	815.33	2,659.36
Totals	$154,571.74	$576,868.82

	Jan. 1, 1929	Dec. 31, 1929
Accrued Liabilities:		
Interest Wabash Valley Electric Company 6% Gold Bonds	$28,229.00	$28,229.00
Dividends Wabash Valley Electric Company 7% preferred stock	8,820.00	8,820.00
Interest on notes payable	110.00	.....
Taxes	109,088.73	119,997.60
Totals	$146,247.73	$157,046.60
Reserves:		
Reserve for uncollectible notes and accounts and contingencies	$8,862.82	$15,634.85
Totals	$8,862.82	$15,634.85
Deferred Credits:		
Prepaid water	$.....	$.....
Mortgage reserve (not bondable)	100,402.10	150,753.34
Totals	$100,402.10	$150,753.34
Contributions for Line Extensions:	$28,916.23	$32,470.22
Surplus	$1,074,739.71	$1,257,884.64
Total liabilities	$6,068,640.33	$6,745,558.47

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Page 82: Martinsville gross revenue January, 1929:

Present rates	$8,215.91	
P. S. C. I. Order 8894 if applied would yield	6,783.19	
Total power purchased 1929 (Ex. 107, p. 45)	84,136,922	
Page 91: KWH input entire Wabash Valley Electric Company January 1, 1929 to December 31, 1929 as shown by master meter readings	75,811,628	
Page 84: KWH input to certain customers of Wabash Valley Electric Company:		
Attica Electric Company	6,014,822	
Northern Indiana Power Company	30,239,200	
Indiana Electric Company	1,364,942	
Total	37,618,964	
Page 90: City of Martinsville	2,532,798	
Page 84: Partial detail of input to Northern Indiana Power Company 1929-30:		
August	4,150,300	KWH
September	4,304,000	"
October	4,437,100	"
November	3,142,300	"
December	1,602,500	"

Page 18 to Page 20

Deferred Rate and Appraisal Expense—Analysis

January: 1929	Debits
C. V. 289—Treasurer of State of Indiana costs assessed by Public Service Commission in Martinsville case	$1,005.11
February:	
J. E. 114—Indiana Electric Corporation Expenses of L. B. Andrus—Martinsville	39.84

March:

	Debits
C. V. 52—Glenn VanAuken—legal services—Martinsville	600.00
C. V. 54—Marsh & McLennan—Cost of Bond—Martinsville	10.00
C. V. 77—Spooner & Merrill—Engineering service—Martinsville	81.82
C. V. 164—E. A. Hartin—Printing 50 copies of complaint in Martinsville case	134.10
C. V. 194—Spooner & Merrill—Engineering service—Martinsville	4.06
April:	
C. V. 72—Fesler, Elam & Young—Legal services—Martinsville	1,789.00
C. V. 232—Spooner & Merrill—Engineering service—Martinsville	108.29
May:	
C. V. 35—Glenn VanAuken—Legal services—Martinsville	200.00

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C. V. 43—Spooner & Merrill—Engineering service—Martinsville	1,202.80
C. V. 291—Spooner & Merrill—Engineering service—Martinsville	2,353.92
June:	
C. V. 45—Spooner & Merrill—Engineering service—Martinsville	2,697.99
C. V. 249—Spooner & Merrill—Engineering service—Martinsville	2,490.63
C. V. 250—Haskins & Sells—Accounting service—Martinsville	4,388.96
C. V. 472—Spooner & Merrill—Engineering service—Martinsville	377.00
July:	
C. V. 41—Fesler, Elam & Young—Legal service—Martinsville	100.00
C. V. 170—Glenn VanAuken—Legal service—Martinsville	100.00
C. V. 175—Spooner & Merrill—Engineering service—Martinsville	1,077.10
C. V. 199—S. C. Kivett—Legal service—Martinsville	1,000.00
Total	$19,760.62

Pages 90, 39, 24

The Martinsville district is divided and the K.W.H. input for each division in 1929, as shown by master meter readings, is as follows:

	K.W.H.
Martinsville Electric	2,532,798
Martinsville outlying:	
Martinsville rural	32,681
Morgantown	144,191
Paragon	31,920

Income Account Electric—1929:

	Martinsville	Martinsville outlying
Total electric income	99550.91	13,464.03
Operating expenses	63394.64	6,544.83
Taxes	2527.23	610.85

Surplus:

January 1, 1929	$1,074,739.71
December 31, 1929	1,257,884.64

[fol. 461] EXHIBIT 108

Gateway Cost of KWH Delivered to Martinsville

Total power cost (p-36)	$1,090,551.54
Substation cost	3,384.80
Deduction—Indirect construction charges (—)	18,242.68
	$985,693.66
Depreciation 4% on $2,542,345 (Exhibit 104)	101,693.80
Return 7% on $2,868,366 (Exhibit 104)	200,785.62
Total	$1,288,173.08
Substation output 75,811,628 KWH—1929:	
Cost per KWH	1.699 cents

EXHIBIT 109

Graph of copper prices December 1, 1929 (19.875 cts. per pound) to August 1, 1930 (12.75 cts. per pound).

EXHIBIT 110

Allocation of Power System on the Ratio of KWH Sold at Martinsville to Total Sales of Wabash Valley Electric Company

Martinsville sales 1929	2,186,564 KWH
Wabash Valley Electric Company sales	72,242,790 KWH
Ratio Martinsville sales to total sales	3.027%
Cost of reproduction depreciated including generating plants	$2,868,366
Allocated to Martinsville Basis of 3.027%	86,825
Cost of reproduction depreciated Martinsville local distribution system	83,000
Total rate base	$169,825

[fol. 462] EXHIBIT 111

Report by Accounting Department of Public Service Commission of Indiana of Examination of Records of Wabash Valley Electric Company for Period from January 1, 1927, to December 30, 1928

Page 12: Materials and Supplies Charged to Martinsville District

Regular	$12,292.32
Fuel	1,046.35
Stores, freight, handling	1,515.99
Total	$14,854.66

Page 36: Operating Revenues and Expenses, Martinsville Electric

	1927	1928
Revenues Martinsville:		
Residence lighting	$26,405.72	$26,946.85
Commercial lighting	26,832.22	27,816.58
Standard and large power	36,719.92	36,831.17
Current used by company and miscellaneous revenue	4,201.53	3,395.53
Total revenue	$94,159.39	$94,990.13
Operating Expenses Martinsville:		
Power	$32,736.95	$31,438.66
Distribution	8,091.17	8,789.45
Consumption	171.29	534.19
Commercial	2,074.04	2,311.26
New business	1,975.21	3,500.31
General	10,903.58	14,049.50
Taxes	1,925.79	2,604.15

	1927	1928
Total operating expenses excluding depreciation	$57,878.03	$63,227.52
Net operating revenue before depreciation	36,281.36	31,762.61
Non-operating revenues appliance sales	(—)556.75	109.21
Gross income before depreciation	$35,724.61	$31,871.82

Page 35: Gross income from operation whole system:

1927	$398,999.07
1928	414,088.37

Martinsville gross operating income:

1927	36,281.36
1928	31,762.61

[fol. 463] Page 65

	1927	1928
Total KWH generated	112,700 KWH	177,680 KWH
Purchased:		
Indiana Electric Corp	57,684,897 "	79,962,702 "
T. H. I. & E. Trac. Co	29,972 "	35,401 "
Interstate Pub. Serv. Co	188,100 "	273,300 "
Merchants Heat & Lt. Co	110,780 "	.....
Northern Ind. Pow. Co	345,600 "	.....
Illinois Pow. & Lt. Co	15,000 "	4,400 "
Total purchased	58,374,349 KWH	80,275,803 KWH
Total generated and purchased	58,487,049 KWH	80,453,483 KWH
Total substation output, including Martinsville	51,557,601 "	71,783,644 "
Martinsville substation output	2,280,984 "	2,426,344 "
Loss—station to substation	7,289,448 "	8,669,839 "
Loss—station to sales	10,115,303 "	21,516,986 "
Loss—substation to sales	2,825,856 "	2,847,147 "
Percentage loss—station to substation	8.0729%	9.2796%
Percentage loss—station to sales	5.8176%	3.7395%
Percentage loss—substation to sales	18.2449%	25.2151%

Page 67: Basis for Apportionment of Power Costs

	1927	1928
Total substation readings	51,545,101 KWH	71,783,644 KWH
Deduct current purchased direct	89,789 "	111,676 "
Net power system output	51,455,312 KWH	71,671,968 KWH
Martinsville readings	2,268,484 "	2,426,344 "
Total power costs	$737,284.54	$957,288.90
Deduct direct purchases	1,651.61	2,001.81
	$735,632.93	$955,287.09
Total apportioned to Martinsville	33,274.92	32,418.41
KWH sold to Martinsville	1,924,507 KWH	2,082,286 KWH
Cost per KWH sold	$.0175	$.0156
Cost per KWH substation input	$.0147	$.0134

[fol. 464]

Page 130, Page 136: KWH Input as Shown by Master Meter Readings

	1927	1928
Attica Electric Company	4,682,590 KWH	5,795,720 KWH
Northern Ind. Power Co.	15,666,974 "	31,891,500 "
Indiana Elec. Corp	1,678,980 "	778,050 "
Illinois Pow. & Lt. Co	12,600 "	.....
Interstate Pub. Serv. Co	3,000 "	.....
Total	*22,044,144 KWH	38,465,270 KWH

(* Master's report finding 25 shows 22,224,144 KWH)

Page 134, Page 141:

City of Martinsville	2,219,144 KWH	2,426,344 KWH
Total input	51,743,620 KWH	71,783,644 KWH

Page 19 to Page 28: Deferred Rate Expense—Analysis

1927:	Debits
Expenses and services, Consulting Engineers, Martinsville Rate case	$329.94
Expenses and services, Consulting Engineers, Martinsville Rate case	449.53
Engineering services and expense, in rate case	355.38
Engineering services and expense, In Martinsville Rate case	1,376.77
Engineering services and expense, Martinsville Rate	355.38
Engineering services and expense, Martinsville Rate	951.93
Engineering services and expense, Martinsville Rate	1,234.30
Engineering services and expense, Martinsville Rate case	504.66
Legal services, Glenn VanAuken, Martinsville Rate case	1,200.00
Engineering services and expenses, Martinsville Rates	181.74
Engineering services and expenses, Martinsville Rates	761.88
Engineering services, Spooner & Merrill, Inventory, etc	281.70
Engineering services, Re Martinsville Rate Case and Inventory, etc.	3,025.05
Engineering services, Re Martinsville Rate Case and Inventory, etc.	1,093.29
Inventory and Appraisal, Martinsville Rate Case and other properties	424.12
Engineering services and expenses, Martinsville Rates	86.42
Retainer fee and legal services in Martinsville Rates	400.00

[fol. 465]

Legal services, Martinsville, Fesler, Elam & Young	150.00
Expenses of VanAuken, Schiesz, Fesler, Andrus and Hartwick, Martinsville	19.00
Legal service, Martinsville, Glenn VanAuken	1,250.00
To Garber and Garber, Reporting hearing at Martinsville. Two days, Transcript, 16 copies, 281 pages each. Binding and indexing	445.40
Legal services, Glenn VanAuken, Martinsville cause No. 8894	1,850.00
1928:	
Engineering services, Martinsville rates, Inventory and Appraisal.	508.27
Engineering services, Wm. E. Vogelback	2,011.95
Legal services, Fesler, Elam & Young, Martinsville rates	650.00
Services and expense, W. M. Beardsley, Martinsville rates	204.90
Legal services, Glenn VanAuken, Martinsville rates	1,800.00
Engineering services and expense, Martinsville rates	17.50
Industrial engineering services and expense, Martinsville rates	1,081.66
Reporting, transcripts, binding expenses, Martinsville rates	900.90
Engineering services and expenses, Martinsville rates	51.47
Legal services, Glenn VanAuken, Martinsville rates	700.00
Legal services and expense, Fesler, Elam & Young, Martinsville rates	1,269.50
Fesler, Elam & Young, Legal services, Martinsville rate case	50.00
Total	$25,972.64

Page 123: Revenue for 1928

The revenue under rates in force previous to July 1, 1927, would have been	$109,493.75
Under rates voluntarily filed by plaintiff during pendency of case before Public Service Commission, effective July 1, 1927, the revenue was	94,697.22
Voluntary reduction	$14,796.53

[fol. 466] EXHIBIT 112

Report by Accounting Department of Public Service Commission of Indiana of Examination of Records of Wabash Valley Electric Company for Period from June 1, 1923, to December 31, 1926

Page 14: Materials and Supplies Charged to Martinsville District

Regular	$9,229.92
Fuel	1,009.30
Stores, freight, handling	1,182.02
Total	$11,421.24

Page 20: Operating Revenues and Expenses, Martinsville Electric

Revenues—Martinsville:	June 1 to Dec. 31, 1923	1924
Residence lighting	$7,484.43	$23,940.37
Commercial lighting	19,982.58	24,528.47
Standard and large power	20,036.05	35,345.86
Current used by company and miscellaneous revenue	924.04*	674.45*
Total operating revenue	$46,579.02	$83,140.25

[*Red in copy.]

	1925	1926
Residence lighting	$26,792.33	$25,972.19
Commercial lighting	25,235.64	25,865.79
Standard and large power	32,058.17	35,298.11
Current used by company and miscellaneous revenue	3,496.67	7,102.14
Total operating revenue	$87,582.81	$94,238.23

Operating Expenses—Martinsville Electric	June 1 to Dec. 31, 1923	1924
Power	$25,297.70	$42,025.34
Distribution	.....	.....
Consumption	46.05	30.82
Commercial	1,245.83	2,804.02
New business	860.17	2,120.10
General	6,666.68	13,756.13
Taxes	2,417.53	2,549.65
Total operating expenses excluding depreciation.	$38,153.64	$66,526.69

[fol. 467]

	1925	1926
Power	$32,215.69	$30,942.33
Distribution	5,586.26	8,742.20
Consumption	38.91	51.25
Commercial	2,982.87	2,978.06
New business	2,077.74	1,961.01
General	13,861.98	11,265.14
Taxes	3,708.28	1,693.94
Total operating expenses excluding depreciation.	$60,471.73	$57,633.93

	1923	1924
Net operating revenues before depreciation	$8,425.38	$16,613.56
Appliance sales	6.10*	93.73
Gross income before depreciation	$8,419.28	$16,707.29

[*Red in copy.]

	1925	1926
Net operating revenues before depreciation	$27,111.08	$36,604.30
Appliance sales	1,456.28	138.23*
Gross income before depreciation	$28,567.36	$36,466.07

[*Red in copy.]

Gross Income from Operations—Whole System

1923	$169,395.62—June 1 to December 31
1924	$234,407.37
1925	$305,158.00
1926	$330,998.26

[fol. 468]

EXHIBIT 113

Report of Accounting Department of Public Service Commission of Indiana Showing Comparison of Revenues at Martinsville Under Present Rates and Those Under Order 8894, Over Period of 11 Months, February to December, 1929, Inclusive, Applied to Consumer Data

Revenue present rates	$91,257.46
Revenue Public Service Commission of Indiana order No. 8894	77,966.94
Reduction in gross revenues for 11 months period	13,290.52
For January 1929, see p. 28 Ex. 107	1,432.72
Total	$14,723.24

EXHIBIT 114

Annual report—Portland, Indiana (excluded by master in report).

EXHIBIT 115

Annual report Rushville, Indiana (excluded by master in report).

EXHIBIT 116

Annual report Columbia City, Indiana (excluded by master in report).

EXHIBIT 117

Annual report Greenfield, Indiana (excluded by master in report).

EXHIBIT 118

Annual report, Peru, Indiana (excluded by master in report).

EXHIBIT 119

Annual report, Goshen, Indiana (excluded by master in report).

EXHIBIT 120

Annual report, Lawrenceburg, Indiana (excluded by master in report).

EXHIBIT 121

Annual report, Linton, Indiana (excluded by master in report).

[fol. 469]

EXHIBIT 122

Annual report, Tipton, Indiana (excluded by master in report).

EXHIBIT 123

Annual report, Madison, Indiana (excluded by master in report).

EXHIBIT 124

Tabulation of Cost of KWH Purchased Wholesale for Distribution

	Population	Total K.W.H.	Total cost	Cost per K.W.H.	From whom purchased
Linton–Municipal...	7,000	1,795,000	$33,212.50	$.0185	Interstate Pub. Ser.
Goshen–Municipal...	10,000	3,878,900	58,151.67	.0150	Interstate Pub. Ser.
Lawrenceburg–Municipal...	4,100	1,455,800	24,766.61	.0170	Interstate Pub. Ser.
Tipton–Municipal...	5,450	2,917,098	47,138.39	.0162	North. Ind. Power Co.
Madison–Private.....	10,000	2,975,400	33,789.34	.0114	Interstate Pub. Ser.

Exhibit 124 is a summary of Exhibits 119 to 123 prepared by witness Williams.

EXHIBIT 125

Tabulation of Cost of Generating Power at Local Plants

	Total K.W.H.	Average cost of coal	Cost per K.W.H.
Portland	4,904,410	3.01	$.0115
Greenfield	2,805,900	3.52	.0104
Rushville	3,228,690	3.27	.0125
Columbia City	2,219,600	3.77	.0116
Peru	9,635,520	....	.0118

N. B.—This is bare cost of generation. (Abstract p. 103.)
Exhibit 125 is a summary of Exhibits 114 to 118 prepared by witness Williams.

[fol. 470] EXHIBIT 126

Tax Return Filed by Wabash Valley Electric Company with State Board of Tax Commissioners on April 2, 1930

Page 1: Materials and supplies of system, December 31, 1929.	$164,437.06
Materials and supplies, Martinsville	27,453.06
Rest of system after deduction, Martinsville	$136,984.00
Page 8: Property and plant as per balance sheet, December 31, 1929	$5,096,997.01
Less: Book value of real estate	175,940.40
Total personal property	$4,921,056.61
Page 9-E: Gross operating income	450,453.17
Less depreciation	201,272.08
Net income	$249,181.09
Net income capitalized at 8%	$3,114,763.62

EXHIBIT 127

Cost of Producing Locally Energy to Supply Martinsville—Diesel Plant (Roy Husselman)

Cost of physical plant	$147,789.00
Engineering and superintendence	7,340.00
Interest	1,551.00
Organization	2,000.00
Materials and supplies	1,000.00
Working capital	3,270.00
	$162,950.00
Total cost new (Investment)	$163,000.00
Depreciation 4%, taxes and insurance 2%, Return 7%—Fixed cost	$21,190.00
Production cost	26,461.00
Total cost of operation	$47,651.00
KWH output	2,532,800 KWH
Average cost per KWH on switch board	1.88136c

[fol. 471]

EXHIBIT 128

Gateway Cost of Electrical Energy (Roy Husselman)

Total power system operation costs	$975,124.57
Depreciation 3.1% of depreciable property $2,069,120	64,142.72
Return 7% on $2,209,662	154,676.34
Total power cost	$1,193,943.63
Cost per KWH of input to substation or gateway on 75,811,628 KWH	1.5749c

EXHIBIT 129

Average cost per KWH of producing energy in local plants in 1928 (Roy Husselman)	7.78c
Average cost per KWH of producing energy in local plants 1929	9.58c
Average cost per KWH purchased 1929	1.001c
1928	1.008c

	New	Depreciated
Value useful portion of local plants	$33,928	$25,024
Value useful portion Martinsville plant	8,107	5,827

[fol. 472]

EXHIBIT 130

Value of Local Plants as Standby Equipment (Roy Husselman).	See Exhibit 31
Cost of current if purchased from Columbia Company is $.0023 per KWH:	
If plants are operated at time of peak demand of system and produce 2,650 KW the saving is 2650 x 300 x 12 x $.0023	$21,942.00
But to generate the above amount of current the operation of the plants, including return, depreciation, taxes, insurance, going value, etc., on Spooner & Merrill's appraisal, costs	82,004.38
During 1929 local plants generated 123,470 KWH.	
Cost of reproduction of local plants depreciated	$309,388
Undistributed costs, cash, material and supplies, going value	107,237
Total	$416,625

Return 7% on $416,625	29,164
Depreciation	14,084
Operating expenses (as charged)	11,828
Cost of generating 123,470 KWH	$55,076
Cost per KWH	0.446

[fol. 473] EXHIBIT 131

Appraisal of Martinsville Local Property as of May 1, 1930 (Roy Husselman)

	Cost of reproduction	
	New	Depreciated
Total plant and equipment	$75,398	$62,952
Total undistributed construction costs	7,603	6,347
Total	$83,001	$69,299
Organization, administration, legal and other costs	5,308	5,308
Materials and supplies	3,320	3,320
Cash working capital	3,200	3,200
Total as of May 1, 1930	$94,829	$81,127
Deduction for reduced price of copper on September 1, 1930	1,552	1,397
Grand total depreciated		$79,730

[fol. 474] EXHIBIT 132

Appraisal of Power System Used and Useful Property, Inventory as of September 1, 1927, Prices as of March 1, 1929—With Deduction for Reduced Copper Prices as of September 1, 1930 (Roy Husselman)

	Cost of reproduction	
	New	Depreciated
Generating plants	$33,928	$25,024
High voltage substations	482,467	433,609
High voltage transmission	986,309	892,877
Carrier current telephone	37,253	31,984
Low voltage substations	14,289	11,423
Low voltage transmission	101,083	86,249
	$1,655,329	$1,481,166
Undistributed construction costs:		
Omissions	$27,957	$25,021
Engineering	81,280	72,746
Low expenditures during construction	4,064	3,637
Miscellaneous construction	8,128	7,275
Taxes—during construction	12,913	11,557
Interest during construction	76,057	68,071
Superintendence	30,000	26,850
	$240,399	$215,157
Total cost of reproduction	$1,895,728	$1,696,323

Cost of reproduction depreciated	$1,696,323
Administration and legal expense	30,616
Materials and supplies	71,037
Cash working capital	18,915
Organization and all other costs to put property in operation as a going concern	19,974
Total as of September 1, 1927	$1,836,865
March 1, 1929 prices, less Reduction in copper wire—September 1, 1930	124,858
	$1,712,007
Net additions September 1, 1927 to December 31, 1929	497,655
Grand total power system (Exclusive of non-useful portion of generating plants)	$2,209,662

[fol. 475]

EXHIBIT 133

Composite Depreciation Rate Based on Cost of Reproduction New
(Roy Husselman)

System	3.1%
Martinsville	4.1%

EXHIBIT 134

Martinsville Operating Revenues, 1926 to 1929, Public Service Commission Audit

	1926	1927	1928	1929
Residence lighting	$25,972.19	$26,405.72	$26,946.85	$31,254.69
Commercial lighting	25,865.79	26,832.22	27,816.58	31,127.89
Commercial power	26,527.88	27,821.58	28,582.63	29,806.11
Wholesale light and power	8,770.23	8,898.34	8,248.54	5,967.33
Heating and cooking	671.74	1,025.55	1,894.97	.....
Sales to other public utilities	1,852.76	1,839.59	.....	.....
Miscellaneous revenues	25.10	38.78	15.64*	110.69
Rural service	675.15	425.01	506.53	10.49
Current used by company	1,844.79	856.02	701.12	871.30
Forfeited discounts	786.63	525.87	780.36	711.76
Unbilled revenue	1,819.19	142.13*	6.13*	.....
Refunds and corrections	573.22*	367.16*	465.68*	309.35*
Totals	$94,238.23	$94,159.39	$94,990.13	$99,550.91
K.W.H. sold	1,815,248	1,924,507	2,082,286	2,186,564

[*Red in copy.]

EXHIBIT 135

Income account, Martinsville, 1929, based on $87,000 value for local property (See Exhibits 136, 137, and 138.) (Carter.)

[fol. 476]

EXHIBIT 136

Martinsville—Electric Income Account, 1929, with Power Costs to Martinsville as Shown in Exhibit 107, with Certain Adjustments (Carter)

Operating revenues (Exh. 107) $99,550.91, adjusted to rates ordered*	$84,750.13
Operating expenses (Exh. 107) $66,425.43, adjusted**	54,979.45
Gross income (before depr.) $33,125.48	$29,770.68

Adjusted Income Applied to Appraisals

Total property—Martinsville Electric	P.S.C.I. appraisals	S. & M. appraisals
Local property	$83,000	$135,402
3.01% of power system	86,338	109,035
	$169,338	$244,437
Depreciation base	$149,281	$186,059
Amount available	$29,770.68	$29,770.68
For return after deducting	5,971.24	7,442.36
4% depreciation	$23,799.44	$22,328.32
Rate of return	14.1%	9.1%

* Rates ordered applied to consumer data for 1929 (Exh. 107 and 113).

** $3,384 substation labor expense deducted as belonging to power system expense, and $118.55 allocated back to Martinsville; $3,399.38 indirect charges to construction deducted as belonging to capital account; $400 allowed by commission for rate case expense substituted for $5,180.65 charged by company.

In Exhibit 135 Carter similarly computed a 13.7% return for year 1929 using Commission's value of $87,000 for local property in total base of $173,338.00.

[fol. 477] EXHIBIT 137

Martinsville—Electric, Income Based on 1929 with Rates and Power Costs as Set Out in Public Service Commission of Indiana Order 8894 (Carter)

Revenue January 1, 1929 to December 31, 1929 under rates ordered	$84,750.13
Total operating expenses including $400 amortization for rate case expense and power at gateway price of $.0172 per K.W.H.	65,313.18
Amount available for return and depreciation	$19,436.95

	P.S.C.I.	Husselman	S. & M.	S. & W.
Depreciation base	$72,757	$67,902	$100,659	$97,118
Total property value including going value, cash working capital material and supplies	83,000	79,730	135,402	119,818
Amount for depreciation and return	19,436.95	19,436.95	19,436.95	19,436.95
Less depreciation (4%)	2,910.28	2,716.08	4,026.36	3,884.72
Amount for return	$16,526.67	$16,720.87	$15,413.59	$15,552.23
Rate of return	19.9%	20.9%	11.4%	13.0%

On $87,000 value found by Commission, rate of return similarly computed by Carter in Exh. 135 is 19%.

[fol. 478] EXHIBIT 138

Amount Available for Power Costs After Allowing Expenses, 4% Depreciation, and 7% Return on Martinsville Local Property Under Rates Ordered by Public Service Commission of Indiana Order No. 8894, Based on 1929 Consumption (Carter)

Operating revenue January to December, 1929, inclusive	$84,750.13
Operating expenses including $400 amortization of rate case expense and excluding power cost	21,749.05

Amount available for power costs	P.S.C.I. appraisal	Husselman appraisal	S. & M. appraisal	S. & W. appraisal
Depreciable base	$72,757	$67,902	$100,659	$97,118
Total property	83,000	79,730	122,402	119,818
Amount available for power after deducting expenses, 4% depreciation and 7% return	54,280.80	54,703.90	49,496.58	50,729.10
Above amount permits the payment of an average gateway cost per K.W.H. of	$.0214	$.0216	$.0195	$.0200

On $87,000 valuation, the amount available for power cost similarly computed by Carter in Exh. 135 is $54,000.80, or $.0213 per K.W.H. for 2,532,798 K.W.H. resulting in a 7% return.

[fol. 479] EXHIBIT 139

Principal Agreement Between Columbia Power Company and Indiana Electric Corporation, Dated September 22, 1926

The agreement is to continue for a period of ten (10) years from the time the Indiana Electric Corporation is ready to receive electrical energy from Columbia Power Company, but is to take effect in any event on or before January 1, 1927. Upon the expiration of the ten year period the agreement is to continue until terminated by either party upon two years' written notice.

The Columbia Power Company is to deliver current at the Ohio-Indiana State Line in the form of three phase alternating current at 132,000 volts.

The maximum demand for each calendar month shall be the actual maximum demand for such month, provided it equals or exceeds the highest maximum demand of any previous month.

During the first year the minimum amount of energy taken during each calendar month shall be 13,000 kilowatts and in the event that the demand shall exceed 20,000 kilowatts the Columbia Power Company shall be given reasonable notice thereof.

It is intended that Indiana Electric Corporation will build a second transmission circuit from Lenore Substation to Indiana-Ohio Line and Columbia Power Company agrees to furnish like facilities to those given the first transmission circuit herein.

In no event is the consumption of electrical energy by the Indiana Electric Corporation to be less than 300 hours' use of the maximum demand during the current month.

Indiana Electric Corporation agrees to maintain a power factor of not less than 95% measured at the 13,200 volt bus bar of Columbia Power Company. If the average power factor for any thirty minute period during the current month between the hours of 7:00 A. M. and 8:00 P. M. falls below 95% the maximum demand shall be increased in the ratio which 95% bears to the power factor so determined as may be expressed by the formula:

$$\text{Maximum demand equals} \quad \frac{\text{measured demand times 95}}{\text{percentage power factor (lagging)}}$$

The rates paid for energy shall be

7.8 mills per KWH for all energy consumed up to and including the number of KWH equivalent to 300 hours' use of the maximum demand.

5.5 mills per KWH for all energy consumed in excess of the number of KWH equivalent to 300 hours' use of the maximum demand.

These charges shall be changed one-tenth of a mill for each increase or decrease of ten cents in the average cost of coal above $2.75 or below $2.25 per ton at Columbia Power Company's generating plant.

Indiana Electric Corporation agrees to pay all bills rendered at the end of the calendar month within ten days after such rendition but in no case is such payment to be made earlier than the fifteenth of the current month.

[fol. 480] Indiana Electric Corporation is to install and maintain a carrier current telephone communication between Columbia Power Company and Lenore Substation.

Supplemental Agreement between Columbia Power Company and Indiana Electric Corporation, dated March 14, 1928.

For a period of twelve months beginning October 7, 1928, Columbia Power Company will have available an excess capacity of 10,000 kilowatts. It is, therefore, agreed that the maximum demand for any one month shall be the maxi-

mum demand for that month only; provided that in no case shall the maximum demand be less than 13,000 kilowatts as provided in Section 4 of Article II of the principal agreement of the parties, dated September 22, 1926.

EXHIBIT 140

Monthly Maximum Demands, Lenore—Columbia, 132 K. V. Line, Year of 1929

Month	Actual monthly max. demand	Billed monthly max. demand
January	11,520	13,000
February	12,240	13,000
March	11,880	13,000
April	12,240	13,000
May	11,880	13,000
June	11,880	13,000
July	11,880	13,000
August	11,880	13,000
September	15,120*	15,120
October	15,120*	15,120
November	12,600	13,000
December	11,880	13,000

*Temporary emergency demand. Taken under term of supplemental agreement dated March 14, 1928.

[fols. 481-487] ORDER SETTLING STATEMENT OF EVIDENCE

The foregoing statement of evidence is, in all respects, hereby approved and settled, pursuant to Equity Rule 75, as a true and complete condensed statement of the material evidence adduced on the hearing before the Special Master and considered on the trial of the above entitled cause.

Dated 10 day of May, 1932.

Will M. Sparks, Circuit Judge. Thomas W. Slick, United States District Judge. Robert C. Baltzell, District Judge.

Ten days' notice per Equity Rule 75 is hereby waived and the foregoing is approved for signature of the judge.

Dated 10 day of May, 1932.

John C. Lawyer, Cooke, Sullivan & Ricks, Fesler, Elam & Young, Howard S. Young, Attorneys for Plaintiff. James M. Ogden, Atty. Gen. of Ind.; G. W. Hufsmith, Asst. Atty. Gen. of Ind.; Arthur L. Sullivan, Atty. for City of Martinsville, Attorneys for Defendants.

[fol. 488] SUPREME COURT OF THE UNITED STATES

STATEMENT OF POINTS TO BE RELIED UPON AND DESIGNATION OF THE PARTS OF THE RECORD TO BE PRINTED—Filed June 6, 1932

Comes now the appellant and adopts its assignments of error as its statement of points to be relied upon.

And the appellant further states that only the following parts of the record, as filed in this court, are deemed necessary to be printed by the clerk for the hearing of the case:

Title of paper	Record pages
1. Bill of complaint filed February 27, 1929, and Exhibit A attached to the bill	1 to 62
Omitting from said bill the schedule of rates in part numbered V, at pages 6 to 9, and inserting in lieu thereof the following: "Here appears the schedule of rates contained in the order of January 26, 1929, attached hereto as 'Exihibit A.'"	
Also omitting from said bill parts numbered VII, at pages 11, 12 and 13; X at pages 15, 16 and 17; and XI, at pages 17 and 18; and all of part No. IX at pages 14 and 15, except the last paragraph thereof;	
Also omitting Exhibits B and C at pages 63 to 68	
2. Answer of the defendants Singleton, et al., filed March 14, 1929	70 to 85
Omitting from said answer the schedule of	

Title of paper	Record pages
rates at pages 75 to 78 and inserting in lieu thereof the following: "Here appears the schedule of rates contained in the order of January 26, 1929, attached to the bill of complaint as 'Exhibit A.'"	
3. Order entered April 6, 1929, allowing City of Martinsville to intervene	90
4. Answer of the City of Martinsville filed April 6, 1929	90 to 103
5. Order entered April 6, 1929, granting temporary injunction	104 and 105
6. Order entered June 3, 1930, referring cause to special master	106
7. Order entered July 2, 1931, upon special [fols. 489-492] master filing report	107
8. Special master's report of his findings of fact and conclusions of law filed July 2, 1931	107 to 227
Omitting from said report the index at pages 108 to 110; findings numbered 1, 2, 3 and 4 at pages 112 to 115; findings numbered 50, 51 and 52 at pages 219 to 225; finding No. 32 at pages 185 to 189, except the first and last paragraphs thereof; finding No. 35 at pages 192 to 194, except the first twenty lines; finding No. 36 at pages 195 and 196, except the last paragraph; and the schedule of rates in finding No. VI at pages 120 to 123 and inserting in lieu thereof the following: "Here appears the schedule of rates contained in the order of January 26, 1929, attached to the bill of complaint as 'Exhibit A.'"	
9. Exceptions filed July 22, 1931, by plaintiff to report of special master	228 to 239
10. Order entered December 18, 1931, substituting West and Cuthbertson as defendants.	240
11. Order entered December 18, 1931, allowing fees of special master	241

12. Opinion of court filed February 26, 1932 .... 242 to 258
13. Special findings of fact and conclusions of law of court filed February 26, 1932 ..... 259 to 281
14. Exceptions taken February 26, 1932 by plaintiff 282
15. Final decree entered February 26, 1932, dismissing bill of complaint, etc. ..... 282 to 283
16. Petition for appeal filed May 10, 1932 ..... 284 to 285
17. Assignment of errors filed May 10, 1932 ... 286 to 294
18. Order allowing appeal entered May 10, 1932 295
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Omitting from said condensed statement the marginal page references to master's report of evidence
20. This statement of points to be relied upon and designation of parts of record to be printed.

Dated this 31 day of May, 1932.

John C. Lawyer, Howard S. Young, Counsel for Appellant.

This is to acknowledge receipt of a copy of the foregoing statement of points to be relied upon and designation of parts of the record to be printed and service of the same this 31st day of May, 1932.

Arthur Gilliom, James M. Ogden, Atty. Gen. of Ind., G. W. Hufsmith, Asst. Atty. Gen. of Ind., Counsel for Appellees.

[fol. 493] [File endorsement omitted.]

Endorsed on cover: File No. 36,825. S. Indiana, D. C. U. S. Term No. 128. Wabash Valley Electric Company, appellant, vs. Frank T. Singleton, John W. McArdle, Howell Ellis, et al., etc. Filed June 2, 1932. File No. 36,825.

FILE COPY

JUN 9 19

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1932.

No. 128

WABASH VALLEY ELECTRIC COMPANY,
Appellant,

vs.

FRANK T. SINGLETON, et al.,
Appellees.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES, FOR THE SOUTHERN DISTRICT OF INDIANA.

STATEMENT AS TO JURISDICTION ON APPEAL.

GEORGE A. COOKE,
PATRICK J. LUCEY,
HOWARD S. YOUNG,
Counsel for Appellant.

FRANCIS L. DAILY,
JOHN C. LAWYER,
Of Counsel.

CHICAGO LAW PRINTING CO., 101 S. WELLS ST. FRANKLIN 6521

STATEMENT AS TO JURISDICTION ON APPEAL.

MAY IT PLEASE THE COURT:

Pursuant to Rule 12 of this court the appellant in support of the jurisdiction of this court to review the above entitled cause on appeal respectfully represents:

A.

The Judicial Code, sections 238 and 266 (U. S. Code, title 28, sections 345 and 380), provides for a direct review by the Supreme Court of the final decree of the District Court denying a permanent injunction in a suit of this character.

B.

The decree sought to be reviewed was entered on the 26th day of February, 1932, record* pp. 282 and 283.

Application for appeal was presented on the 10th day of May, 1932, record pp. 284 and 285.

C.

This appeal is from a decree of the District Court of the United States for the Southern District of Indiana in

*All references to the record are to the pages of the certified unprinted record prepared by the clerk of the District Court and on file with the clerk of this Court. The record has not been printed.

a suit of a civil nature in equity, where the amount in controversy exceeds, exclusive of interest and costs, the sum of $3,000, and arises under the constitution and laws of the United States (R. p. 114). The bill of complaint (R. pp. 2 to 26) is to enjoin the enforcement of an order (R. pp. 29 to 62) of the Public Service Commission of Indiana made January 26, 1929, effective February 1, 1929, prescribing the rates and charges to be made by the plaintiff for its electrical service rendered in the city of Martinsville, Indiana. The bill of complaint alleges that the rates and charges prescribed in said order are confiscatory (R. p. 4) of plaintiff's property used and useful in furnishing electrical service to the public and thereby plaintiff is deprived of its property without due process of law and is denied the equal protection of the laws in violation of its rights under the Fourteenth Amendment to the Constitution of the United States. An interlocutory injunction, enjoining the enforcement of said rates, was granted (R. pp. 104 and 105) by a three-judge statutory court convened pursuant to section 266 of the Judicial Code (U. S. Code, title 28, section 380). The case was heard in the District Court before three judges on final hearing (R. pp. 242 to 258) and a final decree was entered denying a permanent injunction and dismissing plaintiff's bill for want of equity (R. pp. 282 and 283).

The Judicial Code, section 266 (U. S. Code, title 28, section 380) provides for a direct appeal to the Supreme Court from a final decree denying a permanent injunction in such suit.

D.

The following decisions of this court are believed to sustain the jurisdiction of this appeal:

Clark v. *Poor*, 274 U. S. 554, 6.

Lawrence v. *St. L. Railway Company*, 274 U. S. 588.

Interstate Buses Corporation v. *Blodgett*, 276 U. S. 245, 9.

We respectfully submit that this court has jurisdiction of this appeal by virtue of sections 238 and 266 of the Judicial Code as amended by the act of February 13, 1925 (U. S. Code, title 28, sections 345 and 380).

Respectfully submitted,

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PATRICK J. LUCEY,
HOWARD S. YOUNG.
Counsel for Appellant.

FRANCIS L. DAILY,
JOHN C. LAWYER,
Of Counsel.

Received a copy of this Statement as to Jurisdiction on Appeal this ..... day of June, 1932.

.....

.....
Counsel for Appellees.

Office Supreme Court, U.
FILED
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CHARLES ELMORE CROPLEY
CLERK

IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, A. D. 1932.

No. 128

WABASH VALLEY ELECTRIC COMPANY,
Appellant,

vs.

RALPH M. YOUNG, (substituted for Frank T. Singleton) *et als.*,
Appellees.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF INDIANA.

BRIEF FOR APPELLANT.

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HOWARD S. YOUNG,
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R. S. ANDERSON,
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CHICAGO LAW PRINTING CO., 40 S. CLINTON ST. FRANKLIN 0931

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Shively-Spencer Utility Commission Act, Sections 1, 9, 11, 12, 18, 41 and 47; (Vol. 3, Burns' Anno. Ind. Stats., 1926 Ed., Sections 12672; 12680; 12682; 12683; 12689; 12712; 12718.) (See Appendix) 97-99

BRIEF FOR APPELLANT.

Appeal From Final Decree.

This is an appeal from a decree entered February 26, 1932, (R. 170-1) by the District Court of the United States for the Southern District of Indiana, dismissing appellant's bill of complaint for want of equity and dissolving a temporary injunction. The petition for appeal with the assignment of errors was presented and allowed May 10, 1932 (R. 172-9).

Bill of Complaint.

February 27, 1929, appellant filed its bill of complaint (R. 1-15) against the members of the Public Service Commission, the Attorney General and Governor of Indiana, to enjoin the enforcement of an order of the Public Service Commission of Indiana (R. 15-53) made January 26, 1929, effective February 1, 1929, prescribing the rates and charges to be made by the appellant for its electrical service rendered in the city of Martinsville, Indiana.

The bill has a double aspect. First, it presents the claim of the appellant that its entire interconnected electrical property, serving a number of communities and constituting a single operating unit, is the rate base, and on this basis the rates imposed by the order, when considered in connection with the rates in effect in the other communities served by appellant's system, are confiscatory. Second, it alleges that even if the claim of the appellees that (a) the Martinsville property should be segregated and (b)

a "gateway" price fixed for energy, should be applied, nevertheless if the property is allocated according to its actual use and a fair charge is made for electrical energy at the "gateway" the rates are confiscatory.

The bill alleges that this is a suit of a civil nature in equity where the amount in controversy exceeds, exclusive of interest and costs, the sum of three thousand dollars; that appellant is an Indiana corporation organized under the laws of Indiana, engaged in supplying the public with electrical energy for light, heat and power; that the value of the property of appellant used and useful in said public service is not less than $5,026,437; that under the rates prescribed appellant will be prevented from earning more than 4.62 per cent per annum upon the value of such property; that this is less than a fair and reasonable return; that the rates prescribed in said order are confiscatory of appellant's property used and useful in furnishing electrical service to the public; that thereby appellant is deprived of its property without due process of law and is denied the equal protection of the laws in violation of its rights under the Fourteenth Amendment to the Constitution of the United States.

The bill further alleges (R. 11 and 12) that even when tested according to the method used by the Public Service Commission (*i. e.*, that of segregating the Martinsville property and fixing a "gateway" price for electrical energy delivered over appellant's electrical transmission lines to the substation at Martinsville for local distribution) the rates fixed by the commission are inadequate, unfair, unreasonable and confiscatory and take appellant's property without due process of law; that the value of the used and useful "power system" property of appellant (*i. e.*, property other than the local distribution systems within communities) is $3,360,999.16 (R. 6-7); that appellant in 1928

delivered over its power system 71,783,643 kilowatt hours of electrical energy (R. 8); that this included wholesale deliveries to other public utility companies, consisting of the delivery of 31,891,500 kilowatt hours to Northern Indiana Power Company and 5,795,720 to Attica Electric Company, leaving 34,096,423 kilowatt hours delivered by appellant to the so-called "gateways" of cities and towns served by it; that the average cost to appellant in 1928 of all electrical energy sold by it, excluding said wholesale interutility deliveries, and including allowance of 4 per cent per annum for depreciation and 8 per cent per annum for return on appellant's power system property, was $.024996 per kilowatt hour (R. 10) at the "gateways" of the cities and towns supplied by it; that appellant's local property used and useful in serving Martinsville has a value of not less than $141,520.38 (R. 11); that appellant in 1928 supplied its local Martinsville customers with 2,511,125 kilowatt hours of electrical energy; that taking this energy at the said average cost of $.024996 per kilowatt hour delivered at the Martinsville "gateway," adding 4 per cent per annum on the value of the Martinsville property to cover depreciation and adding the expense incurred by appellant in connection with the local distribution of the energy, the total cost to appellant of furnishing electrical service in Martinsville in 1928, without any allowance for return upon the local property, was $96,680.79; that the rates in effect in that year produced a revenue in Martinsville of $95,104.57, leaving an operating deficit of $1,575.32 (R. 11).

Answers.

March 14, 1929, the appellees filed an answer (R. 53-62). April 6, 1929, the city of Martinsville became a defendant by intervention and filed its answer (R. 63-71). The defendants denied that the rates were confiscatory.

Interlocutory Injunction.

On April 6, 1929, the District Court, three judges sitting, issued an interlocutory injunction restraining the enforcement of the rates complained of, on condition that if upon final hearing the rates should be permitted to become effective, appellant should refund to or credit the accounts of its customers respectively, at Martinsville, with any sums collected from them in excess of the rates in question (R. 71-2).

Hearing.

June 3, 1930, the District Court on its own motion referred the case to a special master in chancery to take and report the evidence with his findings of fact and conclusions of law (R. 72). The master took the evidence and reported it July 2, 1931, together with his special findings of fact and conclusions of law (R. 72-133). The master found the rates compensatory and recommended that the temporary injunction be dissolved and the bill be dismissed (R. 133). Appellant's exceptions were overruled by the court (R. 170) and the court entered its special findings of fact and conclusions of law (R. 156-170) in which it found the facts as stated by the master in his report to be true.

Final Decree.

The District Court on February 26, 1932, entered its final decree dissolving the temporary injunction and dismissing appellant's bill for want of equity (R. 170-1).

Opinion Below.

The opinion of the District Court appears in the printed record in this case (R. 142-156). The opinion has not been reported, but was published in the United States Daily of March 12, 1932.

Judisdiction of Court.

The appellant has filed its printed statement particularly disclosing the basis on which it is submitted that this court has jurisdiction to review on appeal the decree below.

Property Involved.

Appellant is a public utility corporation organized under the laws of Indiana. It owns and operates an electrical property used in supplying electrical energy for light, heat and power to approximately 18,000 individual customers residing in fifty cities, towns and rural communities (R. 202) in western Indiana (R. 75). The territory served by appellant lies in thirteen counties, namely, Sullivan, Greene, Owen, Clay, Vigo, Parke, Putnam, Morgan, Fountain, Warren, Tippecanoe, Vermillion and Montgomery (R. 159). Appellant's electrical property is a single physical and economic system, interconnected throughout, and all of appellant's customers are supplied from this one system. It consists generally of electric generating plants located at various points in the system, of high tension transmission lines, transformers, meters and other apparatus for the delivery of electrical energy over the territory generally, and of transformer substations, distribution lines, meters and other items of equipment for the distribution of the energy to appellant's urban, suburban and rural customers, the entire system being designed, installed and operated as an economic unit for the service of the area above indicated, without regard to municipal or other internal political boundary lines (R. 181, 184-186; 211, 226). Appellant generates only a very small part (less than one-fourth of one per cent) of the electrical energy delivered over its transmission system. The remainder (more than 99.75 per cent) it purchases. Its generat-

ing plants are used only to meet peak load demands of the system. A diagram map in evidence (R. 274) shows in green the location of appellant's high tension transmission lines, interconnecting its generating plants and local distribution systems. It also shows in different colors the high tension transmission lines of adjoining electric utilities with which appellant's system is interconnected.

Among the localities served by appellant with electrical energy is the city of Martinsville, the county seat of Morgan county, the residence of Mr. Singleton, chairman of the Public Service Commission of Indiana, one of the two commissioners who heard the case, and one of the three commissioners out of five who entered the order fixing the rates in question (R. 17, 53). His term has since expired and he was succeeded by Ralph M. Young who has been substituted as an appellee in lieu of Mr. Singleton. By the 1920 federal census Martinsville had a population of 4,895 which in 1930 had increased by 49 to 4,944.

Application to Public Service Commission.

On March 16, 1927, seventeen of appellant's Martinsville customers filed a petition with the Public Service Commission of Indiana asking for a reduction in electrical rates at Martinsville. The petitioners made no effort to relate the Martinsville rates in any way to the rates charged by appellant in the other portions of the area served by it and took no account of the effect which a change in the Martinsville rates might have on the revenue derived by appellant from the service rendered by it in the area as a whole. The commission conducted a hearing and on January 26, 1929, entered its order No. 8894 (R. 15-53) reducing appellant's rates for electrical energy supplied to Martinsville customers, effective on bills rendered by

appellant after February 1, 1929. Appellant filed its petition with the commission for a rehearing, which was denied. Appellant's Martinsville revenue for the year 1929 was $100,269.56 (Ex. 107, R. 313, covering January; Ex. 113, R. 319, covering February to December). The rates ordered by the commission would have reduced this revenue by $14,836.57. The reduction in rates ordered was accordingly 14.79 per cent (R. 264, 265).

The Commission's Order.

The commission in its order ignored the interconnected and interdependent character of appellant's property and the area to the service of which the property is devoted, and dealt with the case by dismembering the property and considering only that portion located at Martinsville, to which it assigned a value of $87,000 (R. 45). All of the energy supplied by appellant in Martinsville, is delivered to that community by appellant over its transmission lines from outside sources. The commission nevertheless refused to consider as useful in serving Martinsville any of appellant's property except the local property in that community and made no valuation except of the local property. Instead, it found that $.0172 was a fair price per kilowatt hour for energy delivered by appellant at its Martinsville substation for local distribution, which point the commission called the "gateway" (R. 34-46). It reached this price by the process of dividing $719,175 (the total cost to appellant in 1927 of purchased power) by 51,457,770 (the kilowatt hours of energy purchased by appellant in that year) which gave a figure of $.0139 per kilowatt hour (R. 43-44). To this the commission added an arbitrary figure of $.0033 per kilowatt hour to cover return on appellant's "power system" property used in delivering energy to the Martinsville substation, thereby getting the

figure of $.0172 above mentioned. How the figure of $.0033 was arrived at is nowhere indicated. It was not based upon a valuation of the power system property, for the commission made no such valuation. On the contrary, it stated that it was not necessary to value any property except the local Martinsville property. The commission, also, refused to make any allowance to cover the expense of depreciation on appellant's power system property (R. 41), giving the strange reason that appellant had outstanding a corporate mortgage which required it to set aside 12½ per cent of its gross revenue to be used for meeting depreciation (R. 46). How this clause in the mortgage was expected to produce any revenue is not explained by the order. With equal lack of grasp of the problem, it refused to make any allowance, in valuing the property, for working capital (R. 41-43) stating that by an order No. 7018 entered June 26, 1923, it had previously granted appellant the right to issue stock to provide working capital (R. 42). With equal logic it might have denied the right to earn a return on all the property upon the ground that it had previously authorized the securities with the proceeds of which appellant's property was acquired. Nevertheless, it stated in its order that the "gateway" cost of $.0172 per kilowatt hour included production cost, depreciation and return (R. 45-46).

The Master's Findings.

The master found (F. 49, R. 132) that the rate base for Martinsville should consist of the Martinsville local property, which he valued at $102,947 (R. 94), plus a proportionate part of appellant's power system to be allocated to Martinsville. He valued the power system property at $3,066,395 (R. 98-99) and allocated 3.3 per cent of it, *i. e.*, $101,191 to the use of Martinsville (R. 108, 109), mak-

ing a total sum of $204,138 for the Martinsville rate base. He reached this percentage (3.3 per cent) by an approximation based on (a) the ratio of kilowatt hours of electrical energy sold by appellant to Martinsville customers for the year 1929, to the kilowatt hours of electrical energy sold by appellant during the year, 1929, including deliveries to affiliated utilities; (b) the ratio of Martinsville substation output for 1929 to the total output of all substations of appellant for the year 1929; and (c) the ratio of Martinsville peak demand in 1929 to appellant's system peak demand in the same year, but occurring on different days of the year (R. 109).

The rate base so fixed by the master was used by him to determine the amount of depreciation to be charged as an expense and the amount to be allowed as a return to plaintiff on account of property used in serving Martinsville.

The master accepted the local distribution expenses for Martinsville as actually incurred by appellant, except as to the items of rate case expense and of cost of electrical energy. The rate case had been pending nearly two years before the commission and more than a year before the court. The evidence showed without dispute that appellant had incurred an expense of more than $60,000 in connection with it. The master excluded all of this expense, except $4,000 which he found should be amortized by the making of an operating charge of $400 a year for ten years (R. 116). This action was arbitrary, being without any basis in the evidence.

The master found that $.018 per kilowatt hour was a reasonable price for electrical energy delivered by appellant at its Martinsville substation for local distribution (F. No. 44, R. 127-128). He reached this price by finding the total cost to appellant of power for its entire interconnected

system (exclusive of any allowance for depreciation or for return) and finding the amount equal to that proportion of such cost which the quantity of electrical energy delivered to the Martinsville substation bore to the total energy delivered in appellant's interconnected system, and dividing this amount by the number of kilowatt hours of energy delivered to Martinsville. He went through this process for the three years 1927, 1928 and 1929 and then took an average for the three years, reaching a figure of $.0138 per kilowatt hour (R. 127). He then allowed 4 per cent per annum for depreciation on the depreciable portion of appellant's power system property, which portion he valued at $2,569,395 and 7 per cent per annum for return on the entire power system property, which he valued at $3,066,395 (R. 128). On this basis he arrived at $.0042 per kilowatt hour to cover depreciation and return, upon the basis of a total 75,811,628 kilowatt hour delivery during 1929 throughout all of appellant's interconnected system—thus averaging all of appellant's interutility and wholesale deliveries with its deliveries to its retail customers on a flat kilowatt hour basis.

The Court's Findings.

The District Court overruled the exceptions taken by appellant to the findings of the master (R. 170) and found that the facts found by him are true (R. 169). It also made and filed its special findings of fact and conclusions of law (R. 156-170). Following the master's recommendation, it separated Martinsville from the remainder of appellant's property and determined the rate base to be the Martinsville local property, plus an apportionable part of the interconnected power system property. It determined the rate base by employing the same method used by the master and fixed the same value as the master, namely, $102,947,

for the Martinsville local property (R. 162-163), plus $101,191 for the apportionable part of the power system (R. 167) or a total of $204,138 for the Martinsville rate base.

The court found the cost of electrical energy delivered at the Martinsville substation for local distribution in Martinsville to be $.0133 per kilowatt hour (R. 168). The cost was determined by taking the average for the entire interconnected system for 1929 (Ex. 107, R. 310, 311). It includes the purchase price of one cent per kilowatt hour paid by appellant to Indiana Electric Corporation, another electrical utility corporation from whom appellant purchases substantially all of its electrical energy, and all other power system expenses, except an annual allowance for depreciation expense and return (R. 127). On this basis the court tested the rates at Martinsville for the calendar year 1929 (R. 168, 169) and for the year ending May 31, 1930 (R. 168) and found them compensatory.

The Evidence.

Appellant's electrical property is shown without dispute to constitute one single physical and economic operating unit, interconnected throughout and used to supply electrical energy to the public residing in fifty towns, cities and rural communities located on that system in the above named thirteen counties in western Indiana (R. 73-75; 78-81; 159; 180-193). Every portion of this property, of whatever description or wherever located, is in use and is useful for furnishing service to that public to the same extent that an interconnected electrical property within a single political subdivision is used and useful as a whole in serving each neighborhood in the area (R. 186). Appellant's Martinsville property has no separate physi-

cal existence from an operating or economic standpoint, the energy flowing into and through that portion of the property being utterly indistinguishable and indivisible from the energy constantly flowing into and through the system as a whole (R. 184-185, 207).

Appellant and six other Indiana utility corporations, namely, Indiana Electric Corporation, Northern Indiana Power Company, Attica Electric Company, Colfax Electric Company, Moran Electric Light and Power Company and Mulberry Light and Power Company serve the public with electrical energy in certain territory in central, western and northern Indiana shown on the diagram map (R. 274). The stocks and bonds of these seven companies are owned by Central Indiana Power Company. The seven companies are referred to in the record as "affiliated companies." They have common officers and a common management and their electrical transmission lines are physically interconnected for the interchange among them of electrical energy to serve the public supplied by each respectively.

Appellant owns three small electrical generating plants located in the cities of Martinsville, Sullivan and Clinton, built by former owners for supplying energy locally in the cities where located. They are no longer used for local service but are maintained as reserve plants and used to supply a relatively small amount of energy to the interconnected system during the peak load period (R. 182; 191, 192). The master found they were used and useful property in supplying the system and that their fair value was $309,388 (R. 102).

Appellant purchases practically all of the energy it supplies its customers from Indiana Electric Corporation. The electrical energy generated and purchased by appel-

lant is shown by Exhibits 16 and 17 (R. 279), Exhibit 107 (R. 310) and Exhibit 111 (R. 316) and is as follows:

	K. W. H. Generated	% of Total	K. W. H. Purchased	% of Total	Total K. W. H.
1927	112,700	.19	58,374,349	99.81	58,487,049
1928	177,680	.22	80,275,803	99.78	80,453,483
1929	123,470	.15	84,136,922	99.85	84,260,392
1930—year ending May 31	77,945	.09	85,217,894	99.91	85,295,839

The source of the electrical energy purchased by appellant is shown by Exhibits 107 (R. 310) and 111 (R. 316) to be:

	K. W. H. purchased from Indiana Electric Corp.	% of Total	K. W. H. purchased from Nor. Ind. Power Co.	% of Total	K. W. H. purchased from utilities not affiliated	% of Total	Total K. W. H. purchased
1927	57,684,897	98.82	345,600	.592	343,852	.592	58,374,349
1928	79,962,702	99.61	None		313,101	.39	80,275,803
1929	83,781,646	99.58	None		355,276	.42	84,136,922

The interconnected system owned by appellant and used by it to serve the public in its territory was planned and built about 1923 (R. 180-181); prior to that time small independent companies generated electricity in small plants located in the communities served. At first there was no interconnection between the generating plants in the different communities and a great many municipal corporations, coal mines and other industries operated their own plants. The practice began to change with the increase in the industrial load, and many municipalities, coal mines

and other industries abandoned the practice of generating their own current and commenced buying electrical energy from central generating stations. With the growth of the industrial load, generating plants were interconnected to provide a more reliable and dependable supply of electrical energy and to save investment in reserve generating equipment. With the improvement in the art of generating and transmitting electricity it became apparent shortly prior to 1923 that to generate and supply electrical energy most economically a larger generating station should be built than was required by any one of the affiliated companies. Accordingly the management of appellant conceived the plan of building a generating plant large enough to supply the combined load of all of the affiliated companies. A survey of the territory was made in 1921 and 1922 and it was found that the nearest location where sufficient condensing water could be obtained to operate a large electrical generating station was either on the Ohio River or the Wabash River (R. 181). Options were secured on properties and the affiliated companies purchased certain local properties for the purpose of getting together a group of properties with a sufficient electrical load to make commercially expedient the building of the contemplated power plant on the Wabash River (R. 181). The first purchase of properties by appellant to this end was approved by the Public Service Commission of Indiana on June 26, 1923, as appears from order No. 7018 of the Commission, Exhibit 19-A (R. 281-283). In this purchase was included the Martinsville property.

Indiana Electric Corporation proceeded to construct a large generating plant on the Wabash River near Terre Haute, Indiana, known as the Dresser Plant, with a capacity of 60,000 kilowatts capable of supplying 300,000,000 kilowatt hours per year (R. 80). None of the affiliated companies required enough electricity to make it possible

to build or operate the Dresser Plant and it was necessary that the Dresser Plant serve the customers of all of the affiliated companies in order that it would be commercially expedient to construct it (R. 181, 188). For example, in 1929 there was delivered over appellant's interconnected system a total of 75,811,628 kilowatt hours (R. 313, at p. 91 of Ex. 107), and deducting from this 37,618,964 kilowatt hours delivered to affiliated utilities (R. 313, at p. 84 of Ex. 107) leaves an aggregate of 38,192,664 kilowatt hours delivered by appellant to its customers on its system. Thus by 1929 appellant's requirements for its customers were only about 12½ per cent of the capacity of the Dresser Plant (R. 80). The affiliated companies each built transmission lines in their respective territories interconnecting their various towns and cities. They also physically connected their lines with each other for the interchange of energy and the securing of the supply from the Dresser Plant.

An examination of the map (R. 274) shows that the transmission lines of the companies are so connected as to form a major loop which may be described as follows: From Terre Haute northeasterly to the Lenore substation south of Indianapolis, owned by Indiana Electric Corporation; From the Lenore substation northerly to Kokomo, and from Kokomo westerly to Lafayette, owned by Northern Indiana Power Company; From Lafayette southwesterly to Attica, and from Attica southerly to Clinton, owned by appellant; From Clinton southerly to Terre Haute, owned by Indiana Electric Corporation. This loop is of great value in supplying reliable and dependable service, for the simple reason that if there should be a break in the line at any point, the supply of energy to the towns beyond the break is not interrupted but it continues to flow in from the other side of the loop. Other smaller transmission loops are disclosed on the map as are connections for reserve and emergency supplies of energy

from the generating plants of companies other than the affiliated companies. Each of the affiliated companies built the necessary transmission lines in its respective territory.

Since the organization and construction of appellant's interconnected system in 1923, it has made over 100 rate reductions (R 192). Appellant has established and maintained uniform rates for the same classes of service in cities, towns and communities of the same class (R. 192). All of these rates have been approved by the Public Service Commission of Indiana.

The Dresser Plant is situated near the southwesterly corner of the territory served by the seven affiliated companies. It is seen from the map that the territory served by appellant lies between the Dresser Plant and the territory to the north and northeast, which is served by Attica Electric Company and Northern Indiana Power Company. Consequently Northern Indiana Power Company and Attica Electric Company draw electrical energy generated at the Dresser Plant over the 66 K. V. transmission line of appellant which extends northerly from Clinton to Attica and northeasterly from Attica to Lafayette. A small amount of energy is interchanged between utilities at other points. About 50 per cent of the annual deliveries of energy by appellant over its transmission lines are made in bulk to affiliated utilities. The electrical energy delivered by appellant is shown by Exhibits 107 (R. 310-311) and 111 (R. 315-316) to be:

	K. W. H. delivered to affiliated utilities	% of Total	K. W. H. delivered to Martinsville	% of Total	K. W. H. delivered to other customers	% of Total	Total K. W. H.
1927	22,044,144	42.6	2,219,144	4.28	27,480,332	53.12	51,743,620
1928	38,465,270	53.58	2,426,344	3.38	30,892,030	43.04	71,783,644
1929	37,618,964	49.62	2,532,798	3.34	35,659,866	47.04	75,811,628

Eliminating deliveries of electrical energy to affiliated companies, the deliveries to appellant's customers are shown to be:

	K. W. H. delivered to Martinsville	% of Total	K. W. H. delivered to other customers	% of Total	Total K. W. H.
1927	2,219,144	7.47	27,480,332	92.53	29,699,476
1928	2,426,344	7.28	30,892,030	92.72	33,318,374
1929	2,532,798	6.63	35,659,866	93.37	38,192,664

Over 50 per cent of the electrical energy sold by appellant to its own customers (after first excluding the deliveries to affiliated utilities above mentioned) is supplied to coal mines and other industries outside of the municipal boundaries of cities and towns (R. 181).

The electrical energy delivered by appellant to affiliated companies is shown by Exhibits 107 (R. 313) and 111 (R. 316) to be divided as follows:

	K. W. H. to Northern Ind. P. Co.	K. W. H. to Attica Electric Co.	K. W. H. to Indiana El. Corporation	K. W. H. to utilities not affiliated	Total K. W. H.
1927	15,666,974	4,682,590	1,678,980	15,600	22,044,144
1928	31,891,500	5,795,720	778,050	None	38,465,270
1929	30,239,200	6,014,822	1,364,942	None	37,618,964

The economic advantage of a large generating station over a small local plant was conceded by appellees (R. 79). It was admitted that electrical energy can be generated in a large plant and delivered by an interconnected transmission system, such as appellant operates, more cheaply than it can be generated locally for a city such as Martinsville (R. 268), and that Martinsville must purchase electrical energy from a system such as appellant's in order to secure low rates (R. 261).

Appellant buys electrical energy generated at the Dresser Plant from Indiana Electric Corporation for one cent per kilowatt hour delivered at the Clinton, Indiana, substation. Appellant transmits this energy about 90 miles to its Martinsville substation and there offers it for local distribution in Martinsville at a cost of $.024996 per kilowatt hour (p. 4, Ex. 21, R. 289). If appellant should physically separate Martinsville from its interconnected system property and generate electrical energy in a small local generating plant designed to supply Martinsville alone, the electrical energy supplied at the substation for local distribution would cost from $.028958 (testimony of Charles A. Hamilton, R. 216-218, Ex. 6, R. 277) to $.03712 per kilowatt hour (testimony of Carl J. Sittinger, R. 223-228, Ex. 9, R. 278; testimony of F. W. Martin, R. 214-216, Ex. 5, R. 276), showing a saving of not less than $.004 per kilowatt hour in favor of appellant's plan of service over the cost in a local plant. Appellees' witness, Roy Husselman, testified to extreme estimated electric generating costs ranging from $.0188136 per kilowatt hour in a Diesel engine plant (Ex. 127, R. 321) to $.466 per kilowatt hour in appellant's local Martinsville plant (Ex. 130, R. 321, 322). But Husselman conceded that a large interconnected system could purchase and deliver energy at Martinsville for local distribution cheaper than it could be generated locally (R. 267). The economic advantage of an interconnected electrical system like that of appellant to the various communities located within the general area covered, and particularly to the community of Martinsville, thus is not in dispute.

Value of Property.

Appellant offered appraisals of the value of its entire electrical property by the engineering firm of Spooner & Merrill, represented by Charles W. Spooner and Donald M. Cook, and a like appraisal of the same property by the engineering firm of Stone & Webster, represented by William P. Burnell and Charles J. Sittinger, all of whom testified. Both appraisals were complete and covered appellant's entire electrical property. Summarized their appraisals were as follows:

	Stone & Webster Exhibit 7, (R. 277)		Spooner & Merrill Exhibit 2-G, (R. 275)	
	New	Depreciated	New	Depreciated
Cost of Reproduction with additions to May 1, 1930, May 1, 1929 prices	$4,825,138	$4,718,507	$4,794,359	$4,351,752
Less land (R. 303)	10,388		10,388	10,388
Depreciable Base	$4,814,750		$4,783,971	$4,341,364
Organization		100,000		
Working Cash		40,000		163,000
Materials and Supplies		160,000		140,000
Cost of Financing		270,000		182,185
Going Value		540,000		719,154
		$5,828,507		$5,556,091

The original cost of the plant and property on April 30, 1930, as shown by appellant's books, was $5,235,900.94, of which $4,940,686.94 was electric utility property (R. 232, Ex. 19, R. 280), not including working capital, materials and supplies. All of appellant's outstanding securities, with the proceeds of which it acquired this property (R. 281), were authorized by the Public Service Commission of Indiana by orders entered during the years 1923 to 1927 (R. 281-287). The total of these securities was $5,088,100 (R. 232).

Appellees offered as witnesses Harry V. Wenger and Hugh W. Abbett, members of the engineering staff of the Public Service Commission of Indiana, and Roy Husselman of Cleveland, Ohio, a consulting engineer, none of whom made any appraisal of appellant's electrical property as a whole.

The master ignored entirely the appraisal of Stone & Webster (R. 86). The Spooner & Merrill appraisal showed a value for appellant's local property in Martinsville, after an allowance for accrued depreciation, of $135,402 (R. 275). The witness Abbett appraised the same property at $83,000 (R. 308). The master rejected the appraisal of Spooner & Merrill and accepted that of Abbett (R. 94, F. 19), except as to minor items, and found a value of $102,947. Finding that the figure so accepted by him represented 82.7 per cent of the value of the local Martinsville property as found by Spooner & Merrill, he arbitrarily applied this percentage to the Spooner & Merrill appraisal of appellant's electrical property as a whole and on this basis made a finding that the value of such property was $4,594,887 (R. 130, F. 47). No witness testified to any such figure. The finding is without support of any kind in the evidence.

The income from and expense of appellant's whole property for the year ending May 31, 1930, is shown at page 11 of Exhibit 22 (R. 295) to be:

Gross Income	$1,741,308.40
Operating expenses and taxes	1,303,875.72
Net income	$ 437,432.68
Depreciation at 4% on depreciable property of $4,341,364, which is $4,351,752 (R. 275), less land valued at $10,388 (R. 303)	173,654.56
Balance for return year ending May 31, 1930	$ 263,778.12

This is a return of 4.72 per cent on the appraisal of $5,556,091 by Spooner & Merrill. It is a return of 4.52 per cent on the appraisal of $5,828,507 by Stone & Webster. It is a return of 5.74 per cent on the finding of a fair value of $4,594,887 by the master. The master in his finding of fair value (R. 130-131, F. 47) found that appellant earned a return of only 4.15 per cent on its property as a whole for the year 1929.

In approving the master's finding (based merely on the ratio of deliveries of electricity in Martinsville to the deliveries over appellant's entire system), that 3.3 per cent of appellant's power system property should be regarded as useful in serving Martinsville (R. 151-167) the court gave no consideration to the actual uses to which the property is shown by the evidence to be put. The evidence shows without dispute that had the court, instead of merely averaging all kilowatt hour deliveries together without regard to their character, first excluded interutility de-

liveries [which are made at wholesale rates under interchange arrangements whereby appellant in case of necessity can receive power when needed (R. 183 and 316)] and taken a ratio based upon deliveries of energy to Martinsville customers as compared with deliveries to all other customers, it would have arrived at 6.63 per cent as the portion of the power system applicable to Martinsville, instead of 3.3 per cent.

The following tables will show how the court found the value of the several parts of the appellant's property as compared with the appraisals in evidence:

	Spooner & Merrill Exhibit 2-I (R. 275 & 276) New	Depreciated	Pu
Structural cost September 1, 1929, with May 1, 1929 prices	$2,116,277	$	$2
Total structural overheads	338,612		
Additions and Betterments			
Stone & Webster and Spooner & Merrill to May 1, 1930— Public Service Commission of Indiana to January 1, 1930	539,065	539,065	
Total property	$2,993,954	$2,837,237	$2
Less land (R. 295)	7,188	7,188	
Total depreciable property	$2,986,766	$2,830,049	$2
Feeder allocated to Power System		1,149	
Working Cash		127,352	
Materials and Supplies		90,000	
Organization			
Cost of financing		117,620	
Going value		464,292	
Total Rate Base		$3,637,650	
Deduction for reduced copper prices to 9-1-30			

(A) Exhibit 104 (R. 309)—Working cash, materials and supplies

(B) Exhibit 104 (R. 309)—Going value

NOTE: Stone & Webster included the Power System Property in the sa property at unit costs approximately 5% higher than those

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POWER SYSTEM PROPERTY

	ner & Merrill 2-I (R. 275 & 276)		Public Service Commission Exhibit 103 (R. 308)— Exhibit 104 (R. 309)		Husselman Exhibit 132, (R. 322 & 323)		Master Master's Finding 22; (R. 99, 130)	
	Depreciated		New	Depreciated	New	Depreciated	New	Depreciated
77	$		$2,138,001	$1,765,530	$1,655,329	$1,481,166	$2,138,001	$1,765,530
12			295,476	286,764	240,399	215,157	320,700	264,800
55		539,065	490,051	490,051	497,655	497,655	539,065	539,065
54		$2,837,237	$2,923,528	$2,542,345	$2,393,383	$2,193,978	$2,997,766	$2,569,395
38		7,188	7,188					
56		$2,830,049	$2,916,340	$	$	$		
		1,149						
		127,352		(A) 103,727		18,915		80,000
		90,000				71,037		167,000
						30,616		
		117,620						
—		464,292		(B) 222,294		19,974		250,000
		$3,637,650		$2,868,366		$2,334,520		$3,066,395
					132,828	124,858		
						$2,209,662	Master's finding approved by court (R. 164)	

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em Property in the appraisal of the entire electric
% higher than those of Spooner & Merrill.

	Spooner & Merrill Exhibit 2-H; (R. 275)		Stone & Webste Exhibit 8; (R. 27	
	New	Depreciated	New	Depreci
Distribution System	$84,901	$74,492	$85,953	$84,41
Property in Power Plant used only for Martinsville service	12,475	10,936		
General Equipment allocated to Martinsville	5,412	4,530		
Structural Overheads:				
Omissions & Contingencies			4,200	4,20
Engineering costs			1,300	1,30
Law Expense				
Miscellaneous construction expenditures			(B) 1,700	1,70
Taxes during construction				
Interest during construction			4,800	4,80
Superintendence of construction			700	70
Total Overheads	$10,964	$10,701	$12,700	$12,70
Less Land (R. 294)		376		37
Total Depreciable Property		$100,283		$ 96,74
Total Structural Costs and Overheads	$113,752	$100,659	$98,653	$ 97,11
Working Cash		5,358		(A) 4,10
Material & Supplies		10,000		
Organization and Expense				
Cost of Financing		4,322		5,60
Going Value		17,063		11,00
Total (Rate Base)	$	$135,402	$	$119,81
Deduct to adjust price of copper from 5/1/30 to 9/1/30				
Remainder				

(A) Includes both cash and materials and supplies
(B) Includes law expenses
(C) Called administration and legal expenses in Exhibit 100; (R. 307)

LE LOCAL ELECTRIC PROPERTY

	& Webster t 8; (R. 278) Depreciated	Commission Staff Exhibit 100; (R. 307) Exhibit 101; (R. 300) New	Depreciated	Husselman Exhibit 131; (R. 322) New	Depreciated	Master Master's Finding 19; (R. 94) New	Depreciated
3	$84,418	$70,104	$58,932	$70,104	$58,932	$70,104	$58,932
						12,475	10,936
		5,294	4,020	5,294	4,020	5,294	4,020
0	4,200	1,058	883	1,058	883		
0	1,300	3,609	3,013	3,609	3,013		
		191	159	191	159		
0	1,700	384	321	384	321		
		593	495	202	169		
0	4,800	2,883	2,407	938	783		
0	700	1,221	1,019	1,221	1,019		
0	$12,700	$ 9,939	$ 8,297	$ 7,603	$ 6,347	$10,964	$10,701
	376						
	$ 96,742						
3	$ 97,118	$85,337	$71,249	$83,001	$69,299		
	(A) 4,100				3,200		$ 3,358
		2,968	2,968		3,320		6,500
		(C) 1,508	1,508				
	5,600						
	11,000		7,275		5,308		8,500
	$119,818	$	$83,000	$	$81,127		$102,947
				1,552	1,397	Master's finding approved by court (R. 163)	
					$79,730		

(R. 307)

The court reached this result by accepting (R. 94, 100) the opinion of the witness Abbett (R. 242) as to the principal items of property. On a few minor items where his value was obviously indefensible the opinion of Spooner & Merrill was adopted. The appellant offered the testimony of Charles W. Spooner (R. 195); Donald M. Cook (R. 208); William V. Burnell (R. 218), and Carl J. Sittinger (R. 223) appraisal engineers of wide experience. The court in the main brushed appellant's evidence aside and accepted the opinion of the witness Abbett. The court accepted the opinion as to value, of one man and rejected the opinion of four men of much greater experience. The book value, capitalization, earnings and orders of the Public Service Commission of Indiana authorizing securities, support the opinion of appellant's witnesses. There is only very slight corroboration of Abbett in the testimony of Wenger (R. 261) and Husselman (R. 266).

Without reflecting on Mr. Abbett it is only stating the necessary fact to say that he is a young man of slight experience as compared with the four witnesses produced by appellant (R. 243, 252). He graduated from Purdue University as an engineer in 1916, watched switches a short time in a plant of the Indianapolis Light and Heat Company, went into the army, taught school, and in 1919 became an assistant to the engineering staff of the Publice Service Commission of Indiana, which position he still holds. During his connection with the commission he has been connected with about one hundred appraisals of utility property (R. 243). He has had no construction experience, except in school, and his opinion on prices is based on catalogs and quotations, and his opinion on labor performances on mathematical calculations.

The appellant's witnesses are men known and generally recognized as engineers of standing and ability. Messrs.

Spooner and Cook are graduates of the engineering school of the University of Michigan. Mr. Spooner (R. 195-197) has had practical experience as an electrical engineer since 1906 and Mr. Cook (R. 208) since 1915. They have both been acquainted with appellant's property for the last ten years. Both have made many appraisals of utility properties for rate cases, security issues, bank loans and purchasers. Witnesses Burnell (R. 218) and Sittinger (R. 223) of the Stone & Webster Engineering Corporation are two of the best qualified and best known appraisal engineers in the country. The master disregarded their testimony altogether (R. 85, 86). Burnell graduated in 1904 and has been actively engaged since then in engineering work. Sittinger has had over 20 years experience. The Stone & Webster organization is known by reputation throughout the world. The offhand way in which the master disposed of their evidence and disregarded their years of experience is sufficient to discredit his finding.

Cost of Financing.

The witness Pennington (R. 193) engaged in marketing utility securities during the last eight years, testified that the selling cost of appellant's preferred stock would be from 5 to 10 per cent of the par value. The witness Kelley (R. 194), engaged in marketing utility securities during the last five years, testified that the selling cost of appellant's bonds would be from 4 to 5 per cent. The witness Cook (R. 210) testified that he arrived at the cost of financing by using the figures of Mr. Pennington and Mr. Kelley which, by arithmetical calculation, is an average of 3.8 per cent on the securities as a whole. He testified that he included nothing for cost of financing the common stock. The witness Burnell (R. 220)

testified that he placed the cost of financing, at a conservative estimate, at five per cent. The court disregarded all of this evidence and allowed nothing for the cost of financing (R. 164).

Rate Case Expense.

The actual expense of this rate case exceeded $60,000 (R. 237), but the commission ordered that the expense of the rate case charged to Martinsville be amortized at not over $400 a year over a period of ten years (R. 52). By the same order the commission ordered appellant to pay $1,000 costs for the appraisal by the commission of appellant's local property at Martinsville (R. 52). The commission by this order appraised appellant's local Martinsville property at $87,000 (R. 45). The master (R. 116) and the court (R. 168) concurred with the commission in holding $400 per year for ten years a sufficient allowance to appellant on account of expenses incurred by virtue of this rate inquiry. The court allowed the master $4,500 for taking and reporting the evidence with his findings and conclusions (R. 142). Appellant is thus left in the position of being obligated by the order of the commission to pay to that body $1,000 for its appraisal of the local Martinsville property and obligated by the order of the court to pay into the latter $4,500 for master's fees, or an aggregate of $5,500, while being permitted by the order of the court to earn only $4,000, over a ten year period, with which to make the payment. The court made no provision for the earning by appellant of the money with which to pay for the other expenses actually incurred by it in connection with the case, in the making of inventories, appraisals, etc. Under the findings both of the master and the court (R. 99, 164) the appraisal of the power system was necessary, the value found being $3,366,395. The

testimony of appellant's witness, Louis Schiesz, that the actual expenses incurred by appellant in the case to October 1, 1930, were approximately $60,000 is not questioned or disputed (R. 237). Exhibit 111 (R. 317) shows itemized expenses in 1927 and 1928 of $25,972.64, and Exhibit 107 (R. 313, 314) shows expenses of $19,760.62 in 1929, a total of $45,733.26.

Rate of Return.

The court held 7 per cent sufficient (R. 168). Appellant claimed not less than 8 per cent should be allowed (R. 139, 178).

Appellees' witnesses Abbett (R. 250), Wenger (R. 263), Husselman (R. 267) and Carter (R. 273) testified that 7 per cent per annum would be a fair rate of return on the property and 4 per cent would be a fair amount for depreciation. These witnesses did not make any allowance for the accumulation of a surplus. Appellant's witness Spooner (R. 207) testified that it is necessary to have a rate of return of 7 per cent per annum to take care of bond interest, debt discount, borrowed money and stock dividends, and that to accumulate a surplus the rate of return should be not less than 8 per cent based on the fair value determined for rate making purposes. The appellant's witnesses Burnell (R. 221) Sittinger (R. 227) and Schiesz (R. 235) testified that 8 per cent was a fair return to enable the utility to live and continue to operate.

Specification of Errors Urged.

Appellant urges all the errors assigned (R. 172-R. 179). The errors may be briefly summarized as follows:

1. The court erred in holding that in testing the rates complained of, appellant's Martinsville property should

be considered as a segregated unit and separated from the remainder of the operating unit of which it is an integral physical and economic part (R. 173-R. 174).

2. If in fixing a rate base, segregating appellant's Martinsville property from the remainder of appellant's electrical system was not error, nevertheless the court erred because (a) it did not make a proper allocation of the property outside Martinsville used and useful in serving Martinsville, and (b) it did not properly determine the cost of electrical energy delivered at the Martinsville substation for distribution to Martinsville customers (R. 174-176).

3. The court erred in finding the value of appellant's used and useful property (R. 176, 178).

4. The court erred in allowing only $4,000 to be charged to operating expense for the expense of this rate case, when the actual expense of this case was proven to be in excess of $60,000 (R. 116, 168, 178).

5. The court erred in holding that a 7 per cent return was reasonable when in fact a return of not less than 8 per cent should have been allowed to prevent confiscation (R. 118, 119, 168, 178).

6. The court erred in holding that the rates complained of would have yielded a fair rate of return when in fact the rate of return would be less than fair and reasonable, and would not exceed 5 per cent (R. 124-129; 178).

7. The court erred in holding that the rates complained of are not confiscatory, and in dismissing appellant's bill for want of equity, and in not enjoining the enforcement of the said rates, because said rates are confiscatory and deprive appellant of its property without due process of law, contrary to the Fourteenth Amendment to the Constitution of the United States (R. 141, 178).

ARGUMENT.

I.

The Operating Unit Is the Rate Base

First Assignment of Error (R. 173 & 174).

The court erred in holding that in fixing a rate base appellant's Martinsville property should be considered as a segregated unit and separated from the remainder of the operating unit of which it is an integral physical and economic part (R. 110, 132 and 162).

Appellant contends that its operating property as a unit, not some theoretical and shifting portion of that property, is the proper base for the determination of rates for the area served by that operating property or for any neighborhood or locality within that area; that the guiding constitutional principle which must be observed is that no reduction in rates for the area as a whole or for any part of it may be imposed by public authority unless the earnings of the entire property after such reduction shall be sufficient to yield a fair return upon that property as a whole.

The evidence is undisputed that appellant's electrical system as a unit is making less than a fair return on the value of the used and useful property which composes it. Even the master, after he had arbitrarily reduced the value of the property to 82.7% of the Spooner & Merrill appraisal, was obliged to concede that the return earned by appellant's entire electrical property for the year 1929 did not exceed 4.15% (R. 131).

The appraisal by Spooner & Merrill of the property as a whole (R. 275) shows a valuation of $5,556,091.00. No witness appraised it at less than this amount and there is no basis in the evidence for valuing it at less. On page 11 of Exhibit 22 (R. 295) appears the income and expense for the year ending May 31, 1930. A summary thereof shows the following results:

BALANCE AVAILABLE FOR RETURN—
YEAR ENDED MAY 31, 1930
Page 11; Exhibit 22 (R. 295)

Gross Revenue, System, including revenue from Northern Indiana and Attica Electric Company, adjusted to rate of 1¼c per K. W. H.	$1,741,308.40	
Less:		
Operating expenses and taxes	1,303,875.72	
Net income		$437,432.68
Depreciation at 4% on depreciable property of $4,341,364, which is $4,351,752 (R. 275), less land valued at $10,388 (R. 303)	173,654.56	
Balance available for return		$263,778.12

This is a return of:
4.74% on $5,556,091, appraisal of Spooner & Merrill
4.52% on $5,828,507, appraisal of Stone & Webster
5.73% on $4,594,887, value found by Master.

It is, therefore, indisputable that if the used and useful property constituting the operating unit is to be used as the rate base, the rates in question are confiscatory.

The facts relative to the history, development, construction and operation of appellant's property have been stated. It is obvious on this record that appellant's electrical property constitutes and is in fact one single physical and economical operating unit interconnected and interdependent throughout and used to supply electrical energy to the public residing in fifty communities located on that system in a definite area in western Indiana (R. 73-75; 78-81; 157-160). Every part of appellant's electrical property is used in supplying service to this public which it serves. It is one electrical operating unit, one public service, one utility, not fifty. To assert the contrary is to ignore the fact.

The commission approved the purchase by appellant of the Martinsville property on June 26, 1923 (Exhibit 19-a, R. 281-283). This purchase was part of a plan conceived by the management of the affiliated companies. The management of the affiliated companies made surveys in 1921 and 1922 of the territory near Indianapolis and found that the nearest adequate supply of water for an electrical generating station was either the Ohio River or the Wabash River.

In earlier years electricity was generated in small isolated generating plants located in the communities served. Each municipality or community was in those days a separate unit in itself. There were no interconnections between generating plants in different communities. In case of breakdowns from storm or other causes the service was interrupted. The economies of large generating stations favorably located were unknown and there was no such

thing as rural electrical service. This practice changed as the industrial load increased and as the technical art developed. Demands for energy became so great that it was no longer possible to supply them economically with small generating plants. From 600 to 700 tons of condensing water are required for each ton of coal burned in a generating plant. It is apparent that a large plant can be constructed only on a large body or flow of water. The accepted method of furnishing electrical energy has changed until it has become the general practice, accepted and approved by substantially all electrical engineers, to locate and build very large generating plants where large supplies of water and fuel are cheaply and certainly available, and then to transmit the electricity over high voltage lines to the ultimate consumers residing over large areas. The economic principles which underlie this development are compelling and have nothing to do with the political boundaries of municipal corporations.

In conformity with this accepted and recognized plan of generating, transmitting and distributing electricity, the Dresser plant was built in the midst of the coal fields on the Wabash River near Terre Haute, Indiana, by the Indiana Electric Corporation.

In order to finance the Dresser plant it was necessary to assemble a group of electrical properties with a sufficient demand for electrical energy and income to make the project commercially expedient. Accordingly, the affiliated companies purchased and acquired properties which were interconnected. The aggregate requirements of the affiliated companies were comparable to the capacity of the Dresser plant and sufficient to permit its economical operation. Among these affiliated corporations were the Wabash Valley Electric Company, appellant herein; Indiana Electric Corporation, builder of the Dresser plant;

Northern Indiana Power Company and Attica Electric Company. The four named were the principal ones, the smaller ones being of little importance, but all are shown on the diagram map in evidence (R. 274). The lines of the respective companies are shown in different colors. In addition foreign lines are shown in black.

The appellant's system alone would not require more than 12½% of the capacity of the Dresser plant. It is only by combining the load of the affiliated companies that a sufficient demand is created to justify the construction of the Dresser plant. The interconnection of the systems of the affiliated companies and the delivery of current to the affiliated utilities is necessary in order that appellant may be able to secure a supply of cheap energy from that plant. No one of the affiliated companies has a sufficient demand to justify the construction of the plant without cooperating with the other affiliated companies in the enterprise. It is admitted by the defendant's witness Abbett that appellant could not have the advantage of cheap current generated in a large plant unless it joined with the affiliated companies (R. 256), and that Martinsville would have to obtain its current from such a system in order to get the advantage of low cost of generating energy (R. 261). If Martinsville were to get its current direct from the Dresser plant by building an independent line direct to that plant the cost would be prohibitive (R. 260).

The economic advantage of a large generating station like the Dresser plant over a small local plant is conceded by appellees (R. 79). It is admitted that electrical energy can be generated in a large plant like the Dresser plant and delivered by an interconnected transmission system, such as appellant operates, more cheaply than it can be generated locally for a city such as Martinsville (R. 268).

The Dresser plant was placed in operation in 1924 (R. 181). By that time the affiliated companies had acquired and interconnected their respective properties. Each company built transmission lines in its respective territory and these transmission lines were interconnected so that a supply of electrical energy could be drawn from the plant by all the affiliated companies.

The appellant produced five electrical engineers, Mr. Andrus (R. 180), president of appellant; Mr. Spooner (R. 195), Mr. Cook (R. 208), Mr. Burnell (R. 218) and Mr. Sittinger (R. 223), and the defendants produced Mr. Abbett (R. 242), Mr. Wenger (R. 261) and Mr. Husselman (R. 266), as witnesses, and it was agreed by all of them that the plan of appellant and the affiliated companies for generating and transmitting electricity was the accepted and approved method of conducting an electrical business at the present time; (R. 78 to 81), that Martinsville is better off as a part of such system than it would be if its electrical supply was generated in an isolated plant located in the city of Martinsville; that Martinsville could not have the benefits of economical generation of electricity in a large, well located generating plant unless it were a part of a system large enough to support such a generating plant.

It is apparent, then, that only as a part of a larger whole could Martinsville be thus served. It is served as a part of the appellant's system, and that system is able to have the economies of the generation of electricity in large units only because it is a part of the system maintained by the affiliated companies which draw their supply from the Dresser plant (R. 256 and 261). In other words, the cities, towns and communities in appellant's system are mutually dependent upon each other and must be interconnected with the affiliated companies to build up a large enough load to make possible the Dresser plant and the economies

resulting from it. None, without the others, could have the existing service (R. 186 and 207). Likewise, the cities, towns and communities in the territories of the affiliated companies are dependent upon each other and must be interconnected with appellant to build up the required load. Each company was necessarily required to do its share of building transmission lines in its territory to make the system possible.

In order that a company may successfully sell it electrical service it must be able to supply a reliable, dependable and uninterrupted supply of energy. To do this appellant must be able to procure energy from more than one generating station and transmit it to its customers in each city, town or community from more than one direction (R. 79). The most economical way to obtain energy from more than one source is to have a main generating station, such as the Dresser plant, as a source of supply and then to be interconnected with other stations for reserve and emergency supply. The Dresser plant must from time to time be shut down for periodical repairs. It will, by accident, break down at times and there would be interruption in the service if the system were not interconnected with other sources of supply. To guard against this and to meet the peak demand the appellant maintains three small generating plants located at Martinsville, Sullivan and Clinton. These three small plants are not used locally but are connected with the system and used to supply system demands. Northern Indiana Power Company, also, has a large generating plant at Kokomo (R. 181). It is likewise used for system supply. Generating plants of foreign companies are connected with the system and power may be transmitted from these sources in cases of emergency. Through the 66 K. V. line of appellant through Clinton, Attica and Lafayette

the appellant may, in case of need, draw power from the Kokomo plant of the Northern Indiana Power Company, from hydro-electric plants at Norway and Oakdale, Indiana, owned by Indiana Hydro Electric Power Company, an Indiana utility corporation, and from a large plant at South Bend, Indiana, owned by the Indiana and Michigan Electric Company, another Indiana utility.

In addition to interconnecting the various generating plants, thereby assuring reliable, dependable and uninterrupted service through multiple sources of supply, the transmission system also affords the communities the further insurance of a supply from two directions (R. 79). Thus, the high tension transmission line of the affiliated companies forms a main service loop which may be described as follows: From the Dresser plant northeasterly to the Lenore substation south of Indianapolis; from the Lenore substation north to Kokomo; from Kokomo west to Lafayette; from Lafayette southwest to Attica; from Attica south to Clinton and Terre Haute. This appears clearly on the diagram map (R. 274). By this means, if there is a break in the transmission loop at any point a town is not deprived of energy but the supply will come in from the other side of the loop. If a single line ran from the Dresser plant to Covington, a break at any point between Dresser and Covington would deprive appellant's customers in Covington of service, but with Covington connected to the loop a breakdown between Dresser and Covington would not deprive Covington of service because the energy would come round by the Lenore substation, Kokomo, Lafayette and Attica to Covington. The map (R. 274) also shows smaller loops in addition to the large one described.

This plan of interconnection of systems to afford a supply from several generating stations and by means of at

least two transmission lines (the loop service being the equivalent of two transmission lines) is recognized as the most reliable, dependable and economical way of supplying an uninterrupted service to a community.

The major advantages to the public resulting from the operation by appellant of an interconnected utility system constituting a single electrical operating unit serving numerous cities and towns, including rural communities, may be summarized as follows:

(1) It provides a large enough demand to make possible securing a cheap supply of electrical energy from large generating units which are the most economical means of generating electricity.

(2) It results in an improved load factor which makes for economy through a greater use of the facilities (R. 184 and 185).

(3) Less reserve equipment is necessary, thereby making for economy (R. 181).

(4) It supplies the means of continuous, reliable and uninterrupted service at a smaller cost than it could be supplied for each town individually (R. 181).

(5) It results in standard schedules of uniform rates for the same classes of service, eliminating discrimination among the several communities interconnected (R. 185 and 192).

(6) It aids industrial development of the territory as it is essential that industries have cheap, reliable, dependable and uninterrupted service (R. 184 and 185).

(7) The development of rural territory is made possible and thereby an improved load factor obtained (R. 181, 184, 185).

The appellant has established and maintained uniform rates for the same classes of service in the cities, towns and communities of the same class. All rates have been approved by the Public Service Commission of Indiana (R. 192). Since the organization and construction of appellant's interconnected system in 1923 over one hundred rate reductions have been made (R. 192). The appellant submits that these undisputed facts show that it has built an economical and beneficial system for supplying electrical energy in the entire territory it serves as a single unit (R. 186); and that by so doing it supplies Martinsville with energy more cheaply than it could be supplied as a separate municipality. This system is beneficial to Martinsville and the city has no equity in demanding the benefits of the service at less than the actual cost of the service.

Although appellant's contention that the challenged rates must be tested as to their constitutional validity by their effect upon appellant's system-wide operations was raised and argued by appellant in the lower court, one will search the opinion of the lower court in vain for any ruling upon that question. The lower court not only studiously avoids any consideration or discussion of the constitutional rights upon which appellant predicates its present contention, but assumes the very question at issue against appellant, not on constitutional grounds, but—strangely for a court facing a constitutional question—on the avowed grounds of public policy (R. 146-148).

The lower court held that the state could constitutionally treat Martinsville as a segregated unit, not by a construction or consideration of the federal constitution, but by construing and considering the state law of Indiana under which the Public Service Commission thereof is operating. It is self-evident that appellant's constitu-

tional rights under the federal constitution do not originate in, and are not in any wise dependent upon or determined by the Indiana statutes howsoever such statutes may be construed.

In respect to the proper construction of the Indiana statute, we believe it is entirely clear that there is nothing either in the history or on the face of such statutes requiring that municipalities be treated as segregated rate units, but that on the contrary both the history and wording of the statutes disclose an unmistakable intention on the part of the legislature not that municipalities should be the rate unit, but that the entire system-wide properties of a utility such as appellant's should be the rate unit. (See Vol. 3, Burns' Annotated Indiana Statutes 1926, Secs. 12672, 12680, 12682, 12683, 12689, 12712, 12718).

The lower court in construing the statutes as it did relied upon two principal grounds (1) that if the construction contended for by appellant were sound it would make it necessary to have all the property of the entire system appraised each time a municipality petitioned for a revision of its rates and that such expense, if allowed to the utility as an operating expense, would be so great in many, if not in all cases, as to prevent any reduction of rates and (2) that the Indiana statutes had been patterned after the Wisconsin act and that the courts of that state had held in *City of Eau Claire* v. *Railroad Commission*, 178 Wis. 207, 189 N. W. 476, that the commission of that state was required under the Wisconsin act to treat the municipality as the rate unit.

Appellant's answer to the first of such grounds is twofold, namely, (1) that as long as appellant is in good faith asserting its constitutional rights it should not be penalized by being deprived of the right to charge such expenses as an operating expense, regardless of what may

be the final determination of its constitutional rights; and (2) that the argument founded on expense is self-annihilating in that even if Martinsville is to be treated as a segregated rate unit an allowance must be made for depreciation and return on appellant's power system property located outside of Martinsville and in the eleven counties served. Obviously, before the amount so to be included can be determined, the value of the power system property would have to be determined. Appellant's power system property is approximately two-thirds of its entire property. In any event, therefore, a valuation of the power system property would be necessary even under the District Court's method of calculation, and hence the expense argument as a legal and practical matter loses much, if not all, of its force. In fact this very item of expense is one of the reasons advanced by the commissions of many of the states, including the Indiana commission (see P. U. R. 1924A 1, 8-9), in the decisions hereinafter cited for refusing to treat the municipality as a segregated rate unit. The constitutional guaranty is against confiscation of appellant's property. Municipalities are not guaranteed cheap rate cases.

As to the second ground relied upon by the District Court, namely the *Eau Claire case,* the answer is that that case presented no question of confiscation but merely one of discrimination among municipalities served from an interconnected electrical system. This is clear from the following quotation from the case (178 Wis. 207, 189 N. W. 476 at 480):

> "But in this case there is no contention that the rates fixed yield an unreasonable return to the utility. The complaint is that the return to, or income of, the utility resulting from the rates fixed by the order under review is unlawfully and unreasonably distrib-

> uted among the municipalities constituting the so-called loop system. This brings us down to the single question of whether the commission was acting within the legislative command in treating the loop system as a unit for the purpose of fixing the rates to be charged by the Wisconsin-Minnesota Light and Power Company. This question does not find its answer in any express provision of the statutes."

It is apparent from the above quotation that the issue in the Wisconsin case had nothing to do with that which is here presented. The utility in that case was earning a fair return and the only question was the distribution of that earning power as among the several municipalities affected. Appellant's complaint in the present case is of the action of the commission in reducing rates in one community at a time when appellant's aggregate revenue from its property as a whole was already at a confiscatory level, by the master's own admission. How the District Court could have regarded the Wisconsin case as having any bearing upon that question we have been wholly unable to understand.

It is obvious, we submit, that the District Court erroneously construed the Indiana statute. But even if something could be spelled out of that statute to indicate that each municipality should be considered as a unit for rate making, it would mean only that rates should be uniform within the limits of each municipality—something no utility would question in any event, if on grounds of policy alone—and would have no bearing upon the question whether or not a modern, interconnected electrical system lawfully designed to serve a group of municipalities could be constitutionally deprived of the right to earn a fair return by the process of imposing preferential rates for certain municipalities.

We submit that the rate base for the determination of the charges to be made by appellant to customers who happen to live in Martinsville or customers who happen to live in any other of the communities situated on appellant's interconnected system is the property constituting that system as a whole; that that property cannot be arbitrarily split up into theoretical fractions applicable to the numerous communities in question; that no power resides in the State of Indiana, acting through any public body or official or under any form of procedure, to impose rates upon appellant for any particular group of customers forming a part of the total group which appellant has elected to serve unless such rates when considered in connection with all of the other rates to be charged by appellant to the remainder of its entire group of customers shall be sufficient to enable it to earn a fair return upon its property as a whole; and that for the failure to enforce this constitutional principle the decree of the District Court should be reversed.

It is established by undisputed evidence:

(1) That appellant's system, as a whole, is earning only 4.15% on its value (R. 131).

(2) That appellant's rates in the various cities, towns and communities served by it are uniform for the same classes of service (R. 185 and 192); and

(3) That the rates fixed by the Commission for Martinsville amount to approximately a 15% reduction (R. 313 and 319).

As said by Mr. Justice Brewer in *Chicago, Milwaukee & St. Paul Railway* v. *Tompkins*, 176 U. S. 167 at 176:

> "Such a result indicates that there is something wrong in the process by which the conclusion is reached."

No conclusion, however plausible the reasoning advanced in support of it, is admissible if upon undisputed facts it can not properly be reached.

Minnesota Rate Cases, 230 U. S. 352, at 460.

What is wrong with the reasoning leading to the District court's conclusion?

The district court in its opinion never considered the constitutional question in determining what property constituted the rate base. It considered the constitutional question only after fixing the rate base, *i. e.*, as applied to the rate base fixed by it (R. 146 to 151). The charge by appellant's bill is confiscation. The District court overlooked the fact that rate making is no function of a court. Its duty was to inquire concerning results and to uphold the guarantees which inhibit the taking of private property for public use without just compensation under any guise. This duty it failed to perform.

Pacific Gas & Electric Company v. *City and County of San Francisco,* 265 U. S. 403, at 415.

It is well settled that the basis of calculation of utility rates is the fair value of the property used for the convenience of the public.

Minnesota Rate Cases, 230 U. S. 352, at 434-5.

In the case of *Smyth* v. *Ames,* 169 U. S. 466, at 547, Mr. Justice Harlan defined the utility's constitutional right as:

> "A fair return upon the value of that which it employes for the public convenience."

This definition has been adhered to in all subsequent cases.

In *McCardle* v. *Indianapolis Water Company,* 272 U. S. 400, at 408, Mr. Justice Butler uses the expression:

> "Just compensation for the use of the property employed to furnish the service."

In *Southwestern Bell Telephone Company* v. *Public Service Commission,* 262 U. S. 276, at 287, Mr. Justice Reynolds used the words:

> "A fair return upon properties devoted to public service."

Confiscation cannot be predicated on a single rate or group of rates, but must be judged from the effect on the entire business done by the utility within the area served. In *Willcox* v. *Consolidated Gas Company,* 212 U. S. 19, at 54, the court said:

> "We cannot see from the whole evidence, that the price fixed for gas supplied to the city by the wholesale, so to speak, would so reduce the profits from the total of the gas supplied as to thereby render such total profits insufficient as a return upon the property used by the complainant. So long as the total is enough to furnish such return, it is not important that, with relation to some customers the price is not enough."

In *State Public Utilities Commission* v. *Springfield Gas & Electric Company,* 291 Ill. 209, at 228 and 229, it was contended:

> "That the cost of supplying gas to the small consumer is greatly in excess of the amount allowed in the schedule established by the Commission, and that the burden of paying the return on the capital invested is placed on one-third of the output of gas,—that is the third taken by the large consumers. The point here in question was passed upon by the Supreme Court of the United States in *Willcox* v. *Consolidated Gas Company, supra,* where objection was made on behalf of the company to the reduced rate fixed for gas supplied to the city. It was there said:

'Lastly, it is objected that there is an illegal discrimination as between the city and the consumers individually. We see no discrimination which is illegal or for which good reasons could not be given. But neither the city nor the consumers are finding any fault with it, and the only interest of the complainant in the question is to find out whether by the reduced price to the city the complainant is, upon the whole, unable to realize a return sufficient to comply with what it has the right to demand. What we have already said applies to the facts now in question. We cannot see, from the whole evidence, that the price fixed for gas supplied to the city by wholesale, so to speak, would so reduce the profits from the total of the gas supplied as to thereby render such total profits insufficient as a return upon the property used by the complainant. So long as the total is enough to furnish such return, it is not important that, with the relation to some customers the price is not enough'."

In *Michigan Bell Telephone Co.* v. *Odell,* 45 Fed. (2d) 180 (Dist. Ct. E. D. Mich. S. D. 1930), the court said at pp. 181-182:

"The separable contention of the city of Detroit that, in determining the reasonableness of the telephone rates in effect in the Detroit exchange, the property, revenues, and expenses of the plaintiff involved in the furnishing of telephone service in that city should be segregated from those involved in connection with the other exchanges in the state, and that, if that be done, the present rates prescribed by the commission for the Detroit exchange are sufficient to afford a fair return upon the fair value of the plaintiff's property devoted to the furnishing of service in

such city, was held by the master to be contrary to established law on this subject, for the reason that *in determining whether rates prescribed by a state for a public utility are confiscatory, the property, revenues, and expenses of such utility ought to be considered on a state-wide basis.* With this conclusion we agree, and the master is in this respect confirmed upon the authority of *St. Louis & San Francisco Railway Company* v. *Gill,* 156 U. S. 659, 667, 15 S. Ct. 484, 491, 39 L. Ed. 567, 673; *Puget Sound Traction Light & Power Company* v. *Reynolds,* 244 U. S. 574, 37 S. Ct. 705, 61 L. Ed. 1325; *New York Telephone Company* v. *Prendergast* (D. C.) 36 F. (2d) 54; *United Gas Company* v. *Kentucky Railroad Commission,* 278 U. S. 300, 49 S. Ct. 150, 73 L. Ed. 390."

In *New York Telephone Co.* v. *Prendergast,* 36 Fed. (2d) 54 (Dist. Ct. S. D. N. Y. 1929) the court said at p. 69:

"The defendants have moved to refer the proceeding back to the master to make separate findings as to the confiscatory effect of the rates for New York City and rates outside of the city. The court is not engaged in the task of rate fixing. The question is one of confiscation, that is, whether the plaintiff is able to earn a fair return on a fair value of its property devoted to its entire intrastate business. The master has properly considered the rates as a whole and found the values as to the property devoted to intrastate service within the state. He separately found the values for the city of New York and outside the city for the rest of the state. No good or lawful reason is advanced why there should be separate findings as to the effect of the city rates and outside the city rates respectively; our concern is whether all the rates imposed by the commission are remunerative or

confiscatory, and we leave to the commission the readjustment of the rates upon our finding that it is confiscatory. *Prendergast* v. *N. Y. Tel. Co.*, 262 U. S. 43, 43 S. Ct. 466, 67 L. Ed. 853; *Northern Pac. Ry.* v. *No. Dakota*, 236 U. S. 585, 35 S. Ct. 429, 59 L. Ed. 735, L. R. A. 1917F, 1148, Ann. Cas. 1916A, 1; *Love* v. *Atch. T. & S. F. Ry. Co.* (C. C. A.) 185 F. 321."

In *United Railways* v. *West*, 280 U. S. 234 (1930) the court said at pp. 252-253:

"Complaint also is made of the action of the commission in abolishing the second fare zone established by the company on what is called the Halethorpe line and substituting a single fare for the two fares theretofore exacted. Halethorpe is an unincorporated community lying outside the limits of Baltimore city. *With a single fare, the extension of the line to Halethorpe is not profitable, but, nevertheless, it is an integral part of the railway system, and it will be enough if the commission shall so readjust the fares as to yield a fair return upon the property, including the Halethorpe line, as a whole.* If, in doing so, the commission shall choose, not to restore the second fare, but to retain in force the single fare, we perceive no constitutional objection."

In *St. L. & San Francisco Railway* v. *Gill*, 156 U. S. 649 (1895), the court said at pages 665 and 666:

"It therefore appears that the allegations made and the evidence offered did not cover the company's railroad as an entirety *even in the State of Arkansas*, but were made in reference to that portion of the road originally belonging to the St. Louis, Arkansas and Texas Railway, and extending from the northern boundary of Arkansas to Fayetteville in said State. In this

state of facts we agree with the views of the Supreme Court of Arkansas, as disclosed in the opinion contained in the record, and which were to the effect that *the correct test was as to the effect of the act on the defendant's entire line,* and not upon that part which was formerly a part of one of the consolidating roads; that the company cannot claim the right to earn a net profit from every mile, section, or other part into which the road might be divided, nor attack as unjust a regulation which fixed a rate at which some such part would be unremunerative; that it would be practically impossible to ascertain in what proportion the several parts should share with others in the expenses and receipts in which they participated; and, finally, that to the extent that the question of injustice is to be determined by the effects of the act upon the earnings of the company, the earnings of the entire line must be estimated as against all its legitimate expenses under the operation of the act within the limits of the State of Arkansas."

A note on "The Municipality as a Unit for Utility Valuation" appears in Vol. 14 Yale Law Journal, page 912 (April, 1932) in which the case at bar is cited.

In *Puget Sound Traction Co.* v. *Reynolds,* 244 U. S. 574 (1917), the court said at pp. 580-581:

"But we cannot accede to the suggestion that the question whether the commission's order is confiscatory or otherwise arbitrary within the inhibition of the Fourteenth Amendment is to be determined with reference alone to the Alki, the Fauntleroy, or the Ballard Beach lines. These are and long have been operated by plaintiff as parts of a system comprising two hundred miles of tracks. The commission found that the net earnings of the system for the year end-

ing February 28, 1915, not including depreciation and taxes, were upwards of $1,600,000; that the company had refused to produce the valuations of its property made by experts, and had failed to show that there was not sufficient return from its property to pay operating expenses, taxes, and depreciation, and leave a balance. And from the evidence introduced the commission found the fact to be that, allowing for the services required by its order, the company would have net returns over and above operating expenses, taxes, and depreciation. It was not and is not contended that the system earnings are unremunerative."

In *New York & Queens Gas Co.* v. *McCall*, 245 U. S. 345 (1917), the court said at pp. 350-351:

"There is no showing in the record as to the fair value of the entire property of the Gas Company used in the public service, nor of the rate of return which it was earning thereon, and therefore even if the return on the cost of complying with the order be conceded to be inadequate, this would not suffice to render the order legally unreasonable. * * *

"These references to the evidence will suffice. They show this Public Service Commission ordering a public service corporation to render an important public service, under conditions such that in the aspect least favorable to the Gas Company the initial return upon the investment involved would be low but with every prospect of its soon becoming ample, and also that no claim was made by the company that the comparatively small loss which the company claims would result would render its business as a whole unprofitable."

In *New York, ex rel.* v. *Pub. Ser. Com.*, 269 U. S. 244 (1925), the court said at pp. 248-249:

"The court will not substitute its own judgment as to what extensions are reasonable for the determination of the commission. *New York & Queens Gas Co.* v. *McCall*, 245 U. S. 345, 348. But it will consider the advantages to result to the public from the extensions ordered; it will also consider the investment required to make the necessary additions to property, the cost of furnishing gas in the added territory, the effect of the new service upon the company's income as a whole; and, if it appears that the power to regulate was so used as to pass beyond the exercise of reasonable judgment and to amount to an infringement of the right of ownership, the order will be held invalid as repugnant to the due process clause."

In *Norf. & West. Ry.* v. *West Virginia*, 236 U. S. 605 (1915), the court said at pp. 608-609:

"The fundamental question presented is whether the validity of the passenger rate can be determined by its effect upon the passenger business of the company, separately considered. What has been said in the opinion in *Northern Pacific Railway* v. *North Dakota*, decided this day (*ante*, p. 585), makes an extended discussion of this question unnecessary. It was recognized that the State has a broad field for the exercise of its discretion in prescribing reasonable rates for common carriers within its jurisdiction; that it is not necessary that there should be uniform rates or the same percentage of profit on every sort of business; and that there is abundant room for reasonable classification and the adaptation of rates to various groups of services. It was further held that despite this range of permissible action,

> **the State has no arbitrary power over rates; that the devotion of the property of the carrier to public use is qualified by the condition of the carrier's undertaking that its services are to be performed for reasonable reward; and that the State may not select a commodity, or class of traffic, and instead of fixing what may be deemed to be reasonable compensation for its carriage, compel the carrier to transport it either at less than cost or for a compensation that is merely nominal."**

The Minnesota Rate Cases, 230 U. S. 352 (1913), involved, among other things, the question as to whether or not certain maximum rates for freight and passengers as fixed by the state of Minnesota were confiscatory. Enunciating the general principles applicable to testing the constitutional validity of challenged rates, the court said at p. 434:

> "The basis of calculation is the 'fair value of the property' used for the convenience of the public. *Smyth* v. *Ames, supra* (p. 546). Or, as it was put in *San Diego Land & Town Co.* v. *National City, supra* (p. 757), 'What the company is entitled to demand, in order that it may have just compensation, is a fair return upon the reasonable value of the property at the time it is being used for the public.' See also *San Diego Land & Town Co.* v. *Jasper, supra; Willcox* v. *Consolidated Gas Co., supra.*"

In *Ames* v. *Union Pacific Railway Company,* 64 Fed. 165 at 179 (Aff. in 169 U. S. 466), Mr. Justice Brewer in a case concerning intrastate rates in Nebraska held that the effect of the reduction on the entire system must be considered.

The selecting of the units of service is a problem of management and in the absence of any suggestion of illegality or mismanagement in acquiring or operating the property, obviously those parts of the system which are unprofitable must be taken with those that are profitable.

Groesbeck v. *Duluth, etc., Railway,* 250 U. S. 607, at 612.

The value in question is that of the property actually used and not of what may be considered by some one to be an efficient substitute.

McCardle v. *Indianapolis Water Company,* 272 U. S. 400 at 417-418.

The right to regulate utilities in the interest of the public is very great. But great as the power may be it does not warrant an unreasonable interference with the right of management or the taking of the carrier's property without compensation.

Chicago, Milwaukee & St. Paul R. R. v. *Wisconsin,* 238 U. S. 491 at 501.

There is nothing in the instant case to indicate bad faith. On the contrary the evidence shows prudent management by the Board of Directors of appellant about a matter requiring business judgment. While the state may regulate with the view to enforce reasonable returns and charges it is not the owner of the property of the utility and is not clothed with the general power of management incident to ownership. The Commission is not the financial manager of the corporation and is not empowered to substitute its judgment for that of the directors.

Southwestern Bell Telephone Company v. *Public Service Commission,* 262 U. S. 276 at 288-289.

United Gas Company v. *Railroad Commission,* 278 U. S. 300, at 320-321.

It is an elementary principle that the owner of the property must elect to serve the public before becoming a public utility.

Producers Transportation Company **v.** ***Railroad Commission,*** **251 U. S. 228, at 230-31.**

The owner, by devoting his business to a public use, in effect grants the public an interest in that use and subjects himself to public regulation to the extent of that interest although the property continues to belong to its private owner and to be entitled to protection accordingly.

Munn **v.** ***Illinois,*** **94 U. S. 114 at 126.**

Wolff Company **v.** ***Industrial Court,*** **262 U. S. 522, at 535.**

But broad as is the power of regulation the state does not enjoy the freedom of an owner. The fact that the property is devoted to a public use on certain terms does not justify the requirement that it should be devoted to other public purposes, or to the same use on other terms, or the imposing of restrictions that are not reasonably concerned with the proper conduct of the business according to the undertaking which the utility has expressly or impliedly assumed. If a railroad has held itself out as a carrier of passengers only, it cannot be compelled to carry freight. Public interest cannot be invoked as a justification for demands which pass the limits of reasonable protection and seek to impose upon a utility and its property burdens that are not incident to its engagement.

Northern Pacific Railway Company **v.** ***State of North Dakota,*** **236 U. S. 585, at 595-6.**

The owner of a utility property is protected in that he must first elect to serve the public, and it is only to the extent that he devotes his property to public use that he in effect grants the public an interest in that use and

subjects himself to public regulation. But having done so he is still protected in that he cannot be required to devote it to other public purposes or to the same use on other terms. Burdens cannot be imposed upon his property that are not incident to its engagement in the use to which he dedicated it, according to the terms of the undertaking which he has assumed.

These principles we understand to be fundamental. Applied to this case they clearly mean that appellant is protected in the dedication of its property as a unit to the public service and that the state under the guise of regulation may not dismember that property and subject portions of it to uses to which appellant has never submitted them. It is plainly apparent that the owner might be perfectly willing to serve fifty interconnected towns as a unit, and not be willing to serve any of them separately. The constitution protects the owner in his right to own and operate his electrical property in such reasonable and lawful operating units as he may select. Having by reasonable and lawful methods acquired a given operating unit of utility property, he has the constitutional right to insist that that unit shall as a whole be permitted at all times to yield to him a fair return upon its value, and that the state may not, whatever its local forms, deprive that unit of property of such earnings. There is no suggestion in this record of unreasonableness or unlawfulness in the establishment of the operating unit serving the fifty towns, cities and rural communities located on appellant's interconnected system. On the contrary all of the evidence establishes the reasonableness and economy of the system. The public served consists of the entire body of the customers reached by the property operated as a unit and not some geographical subdivision of that public. There is no more justification for dividing this property into

geographical units than for dividing a city into sections. It might as sensibly be argued that the only property to be considered is that physically necessary to serve the seventeen persons who complained about the rates. Martinsville cannot live alone or be served alone, in the economical manner it is served, any more than could a single citizen of Martinsville. Martinsville willingly accepts all the benefits of the interconnected system, but would like to throw the burden of its fair share of high voltage transmission lines on the other customers of appellant and the affiliated untilities. If the commission was determined, as appears from its order, to confer upon customers living in Martinsville a preferred position over appellant's other customers, it was the commission's inescapable duty to compensate appellant by ordering appropriate increases in the rates charged to all other customers, to such an extent that the earnings realized by appellant upon its property as a whole should equal a fair return upon that property. To order a rate reduction in Martinsville in the face of the fact that the property as a whole was already earning less than a fair return was confiscation of the property as a whole. This confiscation it was the solemn duty of the District court to undo. It was no answer for the court to assert that the property as a whole was not useful in serving the customers located in Martinsville. Appellant has never undertaken to serve those customers alone. They were merely a part of a very much larger number of customers all of whom it had undertaken to serve by means of a property very much larger than that required to serve the Martinsville customers alone. It was this much larger property designed for the service of this much larger number of customers that appellant had lawfully acquired and lawfully dedicated to the specific public service of serving that larger group

of customers. As appellant had never designed nor built its system for the service of customers living in Martinsville considered apart from customers living in the numerous other communities for whose service also the system as a whole was designed and built, no power existed in the public, acting through a public service commission or otherwise, to make rates for those customers who happened to live in Martinsville in disregard of the effect of those rates upon the earnings derived by appellant from its customers as a whole. And in the face of the explicit pronouncements of this court, above referred to, the District court was wholly without right, in determining the question of confiscation, to consider the property piecemeal and determine the case without reference to the effect of the commission's order upon the property's earnings as a whole.

It is clear that the time has come for a clear reannouncement, in unmistakable terms, of the principles heretofore enunciated by this court upon this subject, *i. e.* that the interest of the public in private property begins with and is measured by the election of the owner of that property to devote it to the public service; that except as so devoted it remains private property for all purposes and to every extent; that the devotion of the property to one public use does not justify the forcible subjection of it to another use; that devotion of a property to public use on certain terms does not justify the imposition by the public of other terms; that devotion of a property to public use as a whole does not justify public dismemberment of the property and regulation of such dismembered parts without regard to the effect upon the whole; that, in short, devotion of private property to public use includes, as a corollary, reservation by the owner of every private interest in the property other than those necessarily surrendered by such devotion,

and that such reserved private interest is as fully protected by the Constitution as all other private interests in property.

The public service commissions of the various states quite generally recognize that the proper unit for testing rates is the used and useful property which makes up the operating unit, and they have generally refused to make the municipality the rate unit. Among the commission decisions so holding are the following:

Re Public Service Company of Indiana, P. U. R. 1932B 186 (Ind.)

Re Indiana Bell Telephone Company, P. U. R. 1924A 1, 8-9 (Ind.)

Re Indiana Gas Light Company, P. U. R. 1921E 441, 443-444 (Ind.)

Glenview Improvement Club v. *Peoples Water Co.,* P. U. R. 1918F 187, 189 (Calif.)

Westminster v. *Consolidated Pub. Util. Co.,* P. U. R. 1919E 506, 514-515 (Md.)

City of New Castle v. *Bell Telephone Co.,* P. U. R. 1921B 378, 380-382 (Pa.)

Ben Avon Borough v. *Ohio Valley Water Co.,* P. U. R. 1917C 390, 419-420 (Pa.)

Re Chesapeake & Potomac Telephone Company, P. U. R. 1921B 97, 116-118 (W. Va.)

Re Utah Power & Light Co., P. U. R. 1921C 294, 311 (Utah)

Re Missouri Gas & Electric Service Company, P. U. R. 1921D 687, 688-690 (Mo.)

Re New York Telephone Company, P. U. R. 1922A 497, 499-500, 501-502 (N. Y.)

Walter R. Stone v. *New York Telephone Co.,* P. U. R. 1921D 736, 757-758 (N. Y.)

Re United Traction Company, P. U. R. 1927D 637, 647-648 (N. Y.)

Re United Utilities Co., P. U. R. 1922B 344, 345 (Ill.)

Re Illinois Commerce Commission v. *Rockford Electric Company*, P. U. R. 1929E 498, 501-502 (Ill.)

Re Commonwealth Water Company, P. U. R. 1922C 48, 56-57 (N. J.)

Re City of Eaton Rapids, P. U. R. 1922D 94, 109, 117 (Mich.)

Re City of Pontiac, P. U. R. 1923D 193, 216-218 (Mich.)

Re Edison Electric Illuminating Company, P. U. R. 1928D 859, 862-863 (Mass.)

Re Georgia Power Company, P. U. R. 1929B 156-157 (Ga.)

Re Green Mountain Power Corporation, P. U. R. 1930B 171, 176 (Vt.)

Re Wisconsin Telephone Company, P. U. R. 1931E 135, 136-137, 140-141 (Wis.)

II.

If power system property is to be allocated to Martinsville it must be on an actual use basis.

If Martinsville is to be treated as a segregated unit, (*a*) the allocation of power system property to Martinsville use, and (*b*) the fixing of a "gateway" cost for electric energy supplied Martinsville, must be on a use basis and not by averaging.

Second Assignment of Error (R. 174-176).

If, in fixing a rate base, segregating appellant's Martinsville property from the remainder of appellant's electrical system was not error, nevertheless the court erred because:

(*a*) It did not make a proper allocation of the property outside Martinsville used and useful in serving Martinsville and

(*b*) It did not properly determine the cost of electrical energy delivered at the Martinsville substation for distribution to Martinsville customers.

The master allocated 3.3% (R. 109) of the power system property to Martinsville. The master reached this percentage by an approximation based on (*a*) the ratio of kilowatt hours of electrical energy sold by the appellant to Martinsville customers for the year 1929 to the total kilowatt hours of electrical energy sold by the appellant during the year 1929, including deliveries to other utilities; (*b*) the ratio of Martinsville substation output for 1929 to the total output of all substations of appellant for the year 1929; and (*c*) the ratio of Martinsville peak demand in 1929 to appellant's system peak demand in the same year. (R. 108-109).

The ratio of kilowatt hours of electrical energy sold by appellant to Martinsville customers to the total system sales, would only vary from the ratio of Martinsville substation output to the total substation output, as the line losses in the Martinsville distribution system might be more or less than the line losses in the rest of the appellant's system. The ratio of Martinsville's peak demand to the total system peak demand, would only vary from the ratio

of (*a*) sales to customers, and (*b*) substation deliveries, as the peak demand in Martinsville might be higher or lower than the peak demand in the rest of the system. The tests made by the master show that (*a*) the line loss is heavier in Martinsville than on the rest of the system because Martinsville sales were only 3.027% of the total system sales, while Martinsville substation output was 3.34% of the total output of all of appellant's substations; and (*b*) that the peak demand in Martinsville is slightly lower than on the rest of the system, since the Martinsville peak demand in 1929 was 3.01% of appellant's system peak demand, although substation deliveries at Martinsville were 3.34% of the total output of all of appellant's substations.

Hence it is apparent, as applied to the facts of this case, that the three methods utilized by the master in determining 3.3 to be the percentage of the power system property to be allocated to Martinsville were in reality but different methods of measuring the same factors. Moreover, it must not be overlooked that all three methods did not exclude but instead included the wholesale deliveries by appellant to its affiliated utilities (Ex. 33, R-307; Ex. 106, R-309, R-109).

However the cardinal fact to be borne in mind relative to the instant issue is that both the master and court utilized the foregoing method of allocation solely because all of the witnesses, both for appellant and appellees, who testified in respect to the proper method of allocating a portion of the power system property to Martinsville, agreed that if Martinsville was to be treated as a segregated unit the foregoing method of allocation was the proper method of allocation, disagreeing only as to whether or not the inter-utility wholesale power deliveries should

be included or excluded in applying such method of allocation (R-227, 235, 248, 259).

The court approved the master's finding and apportioned 3.3% of power system property to Martinsville use (R-167-168).

The court in finding the cost of electrical energy delivered at the substation (*i. e.* "gateway") at the city of Martinsville, for local distribution in Martinsville, divided the total power system energy cost by the total of all substation meter readings and found an average energy cost of $.0133 per kilowatt hour (R-311), which price was accepted by the court as a proper gateway cost for electrical current delivered to Martinsville exclusive of an allowance for depreciation and return (R. 154 and 168). By so doing a low average cost was reached because the deliveries to the affiliated utilities of approximately one-half the current passing over appellant's system at $.01 per kilowatt hour were included in making such calculations.

Substantially one-half of the electrical energy delivered over appellant's system is delivered by it in wholesale quantities over the Clinton-Attica-Lafayette line to Attica Electric Company at Attica and Northern Indiana Power Company at Lafayette. This energy is purchased from Indiana Electric Corporation and resold to the affiliated utilities. This is a necessary part of the plan to make the central generating plant for the use of all economically possible. The affiliated utilities interchange energy with appellant and appellant may, in case of necessity, draw on the affiliated utilities to obtain a supply of energy for appellant's customers.

An analysis of the tables set forth at pp. 16-17, *supra*, discloses that, taking into consideration all the factors set forth in respect to the years 1927, 1928 and 1929, the year

1929 is more nearly representative than any other one year of all the operating factors present in appellant's business which, under the testimony hereinabove referred to, should be considered in making an allocation of appellant's power system property to Martinsville and in fixing a gateway cost for electrical energy furnished to Martinsville if such a cost must be fixed.

From this it follows that if the challenged rates can be shown to be non-compensatory on the basis of the figures for the year 1929 then it must follow that the rates are in fact confiscatory (*a*) because, all things considered, the year 1929 is the most favorable to appellees and the least favorable to appellant and (*b*) because, as above stated, the year 1929 is more nearly representative of all of the operating factors present in appellant's business which under the testimony hereinabove referred to and which under any conceivable rational method of procedure, should be considered in making an allocation of appellant's power system property to Martinsville and in fixing a gateway cost for electrical energy furnished to Martinsville.

The electrical energy delivered by appellant to the affiliated companies in 1929 was (R. 313 and 316):

To Northern Indiana Power Company	30,239,200	K.W.H.
To Attica Electric Company	6,014,822	"
To Indiana Electric Corporation	1,364,942	"
Total	37,618,964	K.W.H.

The electrical energy delivered by appellant in 1929 to affiliated utilities, Martinsville and other customers, and the percentages of each to the total, was (R. 310, 311, 315 and 316):

			% of Total
To affiliated utilities	37,618,964	K.W.H.	49.62
To Martinsville	2,532,798	"	3.34
To other customers	35,659,866	"	47.04
Total deliveries	75,811,628	K.W.H.	100.00

From this it appears that the Martinsville deliveries of energy are about 3.34% of the total and that the deliveries to affiliated utilities are 49.62% of the total.

It also is apparent that if the deliveries to affiliated utilities are eliminated, as appellant contends that they should be, then the percentage of the Martinsville deliveries to all other deliveries of appellant will be approximately doubled. The figures are:

			% of Total
To Martinsville	2,532,798	K.W.H.	6.63
To other customers	35,659,866	"	93.37
Total deliveries	38,192,664	K.W.H.	100.00

Therefore, in the light of the foregoing facts the crucial question on this branch of the case is as to whether or not in allocating a portion of appellant's power system property to Martinsville and in fixing a gateway cost for electrical energy delivered to Martinsville the wholesale deliveries should be included, thereby reducing the amount of property to be otherwise allocated to Martinsville by approximately fifty per cent. and thereby reducing the gateway cost for electrical energy delivered to Martinsville by approximately one-half of one cent per kilowatt hour.

The allocation must be based upon actual uses.

Smith v. *Illinois Bell Telephone Co.*, 282 U. S. 133 at 150-1.

Minnesota Rate Cases, 230 U. S. 352 at 458.

It is proper to classify services for rate making purposes.

Northern Pacific Ry. v. *North Dakota*, 236 U. S. 585 at 598-9.

Interstate Commerce Comm. v. *B. & O. R. R.*, 145 U. S. 263 at 281-2.

Interstate Commerce Comm. v. *Chicago & Western Ry.*, 209 U. S. 108 at 119.

Texas & Pacific Ry. v. *Interstate Commerce Comm.*, 162 U. S. 197 at 205-7.

Averaging methods such as were employed by the master and court are not proper.

Northern Pacific v. *Department of Works*, 268 U. S. 39 at 42-5.

Chicago, Milwaukee & St. Paul Ry. v. *Public Utilities Comm.*, 274 U. S. 344 at 351.

Wood v. *Vandalia R. R.*, 231 U. S. 1 at 3-4.

The differences between the delivery in 1929 of 2,532,798 kilowatt hours to a town like Martinsville for distribution to small retail customers in the town, and the wholesale bulk delivery in 1929 to other utility companies of 37,618,964 kilowatt hours, are apparent and sufficient to require a classification and treatment on a basis of use instead of the averaging method used by the master and district court. (R. 107) These differences may be summarized as follows:

(1) The quantity delivered to the other utilities is vastly greater, the deliveries to Martinsville being less than 7% of the deliveries to other utilities.

(2) The deliveries to the utilities are at high voltages of 66,000 volts, thereby avoiding all transformer losses, and the line loss to the affiliated utilities is only 2% as against the 14.48% average in Martinsville. (R. 108)

(3) The deliveries to the affiliated utilities are under interchange agreements whereby appellant has the right to draw from the affiliated utilities electrical energy to meet its reserve and emergency requirements. No such right exists as against Martinsville.

(4) The interconnection with the affiliated utilities for delivery of energy is for the express purpose of creating a sufficient load to make the Dresser plant commercially and economically possible, thereby making it possible for appellant to secure large quantities of energy at $.01 per kilowatt hour, which is much cheaper than it could be generated locally in Martinsville.

(5) The deliveries to the affiliated utilities are wholesale bulk deliveries and those to Martinsville are for local retail distribution by appellant.

(6) The element of competition affects the price of large wholesale deliveries more than retail deliveries. On account of the competitive element the affiliated utilities would not pay appellant more than $.01¼ per kilowatt hour prior to December 1, 1929, and would not pay more than $.01 per kilowatt hour after December 1, 1929. It is conceded (R. 256) that if appellant should attempt to charge the affiliated companies the average or gateway price fixed by the master and court that the affiliated companies would not take such current from appellant but would get it elsewhere and would leave appellant with only its own consumption which is but approximately 12½% of the amount required for operating the Dresser plant economically.

(7) The appellant, by joining the interconnected system, escapes a large investment in generating equipment and although to accomplish this it is required to make an investment in high tension transmission lines the investment in the transmission lines is enough less to enable appellant to furnish cheaper energy through the system as planned, constructed and operated than could be supplied from a local plant in Martinsville. (R. 181)

(8) The interconnection secures a better load factor, thereby resulting in a better use of the equipment (R. 184 and 185) and a lesser energy cost to Martinsville (R. 188).

(9) There are large industrial customers outside the corporate limits of cities to be served and the plan makes it possible to serve these large customers which is mutually beneficial to all concerned. (R. 181)

(10) The inter-utility deliveries take place solely over appellant's Clinton-Lafayette line.

(11) Although appellant absorbs a line loss on the inter-utility deliveries, still the expense of operating and maintaining the Clinton-Lafayette line is substantially fixed and therefore such expense would be the same even with the inter-utility deliveries eliminated (R. 186, 188).

(12) Substantially the same investment in the Clinton-Lafayette line would be required for serving appellant's own customers even if the inter-utility deliveries were eliminated, the only difference being that a copper conductor of a smaller size would probably be used (R. 186), the poles and other transmission equipment remaining the same.

The inter-utility deliveries by appellant are made over its 66 K. V. line between Clinton and Lafayette. For the year ending May 31, 1930, 89.44% (R. 302) of the energy

delivered over this line was delivered to Northern Indiana Power Company and Attica Electric Company and 10.56% was for the use of appellant's customers in the territory served by this line.

The master admitted

> "* * * that it is commercially expedient and economically sound for companies furnishing electrical current to make such interconnecting arrangements and obtain such current from large producing plants and distribute it to the ultimate consumers." (R. 112).

The master's reasons for not excluding the deliveries to affiliated utilities in determining the Martinsville rate base and in fixing the gateway cost of energy delivered to Martinsville appear at R. 112, 127-128.

The court approved the findings of the master (R. 169). The court's reasons for the non-exclusion of the deliveries to the affiliated utilities (R. 151, 154 and 166-7-8) do not add anything to the reasons advanced by the master.

The master in his finding No. IX (R. 78 to 81) found that the interconnection of the systems was necessary in order to build up a sufficient load to make the Dresser plant commercially expedient and to secure to appellant a source of supply of electrical energy at low cost. It is clear that it is necessary for the affiliated companies to cooperate, and join together, in order to build up a sufficient demand for electrical energy to justify the Dresser plant. While the master and the court concede this, they seem to think that the appellant, by so doing, furnishes its transmission line for the use of the other affiliated companies without receiving just compensation. This ignores the large benefit which both appellant and the city of Martinsville receive by reason of the arrangement. (R. 207). The district court would give to Martinsville the benefits to be de-

rived from generating electricity cheaply in a large station at Dresser without charging Martinsville with its proportionate share of the expenses necessary in order to build up a system sufficient to consume the output of the Dresser plant. The division of the power system property among the towns served by appellant on the basis of the ratio of consumption at Martinsville to the total deliveries over appellant's entire system gives Martinsville the entire benefit of the large deliveries to the affiliated utilities thereby depressing the percentage to approximately one-half of what it would be if such inter-utility deliveries were eliminated.

Martinsville is not being treated unfairly by eliminating such inter-utility deliveries because it receives energy at less than it would cost to generate it in a local Martinsville plant. The affiliated companies cannot be charged more than one cent per kilowatt hour because if the price is made larger they will buy elsewhere.

The absurdity of the action taken by the commission, the master and the court is disclosed when it is realized that by including the wholesale deliveries to the affiliated utilities approximately fifty per cent of appellant's entire power system was, in effect, allocated to the use of such deliveries whereas the evidence shows that only 89.44% of the Clinton-Lafayette line is in fact used in making such deliveries (R. 302), which is of the value of $905,979. (R. 304).

If an average cost is to be applied to determine the proper price for Martinsville it results not only in destroying all classification of service but in rendering impossible the very service which Martinsville now receives. In other words the allocation of the court and master leads to the paradox that the only fact which renders their own allocations possible—the continuance of the in-

ter-utility deliveries—will and shall be rendered impossible. The sale of energy to the affiiliated utilities, large power customers, and to all city gateways would have to be at the same average price. It would then become necessary to charge the affiliated utilities the average cost. This is impossible. Under the evidence the sales to them would cease (R. 256) and the rates at Martinsville would have to be increased. The evidence shows that competitive conditions prevent the charge of more than $.01 per kilowatt hour for the bulk sales to the affiliated utilities. In other words, the present classification as well as the possibility of continued service would be destroyed, and all now paying more than an average price would be reduced and all paying less than an average price would be increased. This method of calculation results in giving to Martinsville the benefits of the entire system and relieving it of its proportionate share of the necessary costs. Appellees would and do accept the benefits of a system in order to get a low average cost of power and disclaim the burdens of the system in order to escape the burden of a proportionate part of the property necessary to develop the system. The appellant charges the affiiliated utilities all that competitive market conditions will warrant, and the residue of the burden must necessarily fall upon appellant's retail customers. Since appellant has provided a system that gives Martinsville energy at a less cost than it could be provided in a local generating plant Martinsville has no equity in demanding a greater per cent of the economies of the system whatever method of allocation may be devised or employed.

Applying the test proposed by appellant in Exhibit 21 (R. 289) and dividing the total power system cost, after crediting such cost with the price of the sales to the affiliated companies, by the total kilowatt hours delivered to

appellant's retail customers the cost of energy at the Martinsville gateway is $.024996 per kilowatt hour, allowing 4% for depreciation and 8% for return on the power system property. The gateway cost found by the master upon allowing 4% depreciation and 7% return on the power system property is $.018 per kilowatt hour at the Martinsville gateway. (R. 128).

While appellant insists that under a proper allocation of appellant's power system property according to the use to which such property is put and in determining the proper gateway cost of energy to Martinsville, the wholesale deliveries to the affiliated utilities should be entirely eliminated as set forth in said Exhibit 21, (R. 288) still appellant, in order to demonstrate that the challenged rates are confiscatory on the basis of a use allocation least favorable to appellant and most favorable to appellees and hence are confiscatory on any conceivable allocation according to the use to which the property is put, is willing to eliminate from the power system property and from the power system expenses and hence from the Martinsville rate base and from the Martinsville gateway cost 89.44% of the value of the Clinton-Lafayette line and the total expense of the operation of that line, which percentage of said value and expenses is, on the basis of an allocation according to the uses to which the Clinton-Lafayette line is put, fairly attributable solely to the wholesale deliveries to the affiliated utilities (R. 239). This method of allocating out a portion of the value and expenses of the Clinton-Lafayette line to the wholesale deliveries to the affiliated utilities is shown by Exhibit 28 (R. 299-304) and results in a gateway cost of energy to Martinsville of $.022897 per kilowatt hour and this, appellant contends, is the very least gateway cost that can, under the facts and the evidence of this case, be consti-

tutionally fixed for Martinsville if it is to be treated as a segregated rate unit. Exhibit 28 shows that by eliminating the property devoted to inter-utility deliveries and dividing the actual power system cost among appellant's retail customers the average cost per kilowatt hour is approximately 28% higher than that fixed by the master and court.

The record shows that, excluding the wholesale deliveries to the affiliated utilities, one-half of the deliveries made by appellant to its retail customers are to large power customers such as gravel pits and coal mines located in the country outside the corporate limits of cities, towns and villages. (R. 181) The city of Martinsville is shown to have few industries that consume large amounts of electricity. (R. 157). The Martinsville load (R. 310) is approximately one-third residence lighting, one-third commercial lighting and one-third standard and large power. It is, therefore, obvious that Martinsville is treated fairly when it is averaged with the other towns and power customers of appellant after eliminating the inter-utility deliveries.

In fact when Martinsville is averaged with the other towns and power customers of appellant after eliminating the wholesale deliveries to the affiliated utilities as above set forth, Martinsville receives a more fair treatment than it is entitled to because under the evidence (R. 211) it is not possible for appellant to sell energy throughout its system at an average cost. The cost of energy per kilowatt hour to the power users outside the municipalities is less than the cost per kilowatt hour of energy delivered to the municipal gateways for the reason that the power users serve to build up a much greater load factor than do the municipalities and it is the large users of power who have made it possible to reduce rates and give Mar-

tinsville the benefit of low rates. (R. 185, 211) It is manifest, therefore, that the power consumer must be charged at a lower rate than the residence consumer (R. 226).

Consequently, when Martinsville is averaged with the other towns and power consumers of appellant after eliminating the wholesale deliveries of energy to the affiliated utilities Martinsville is treated on the basis most favorable to it and least favorable to appellant.

The method used by the commission, the master and the district court in allocating property and fixing a "gateway" cost for energy, was an averaging process, obviously wrong, which resulted in destroying not only all classification but all continuation of service and in charging to Martinsville energy at a very low average cost, less than was fair, and in charging Martinsville with the burden of only about one-half the property which is necessarily used and useful in supplying service to Martinsville and the other towns and cities in the system, of which Martinsville is an integral part.

To treat the inter-utility deliveries upon the same basis as deliveries to the consumer public also constitutes an invasion of the functions of the corporate management. Appellant's 66 k. v. line from Clinton to Lafayette and the inter-utility deliveries over it are an essential part of the plan of doing business adopted by the corporate management. If the commission or court does not recognize this use as a necessary incident of the plan of doing business, then the commission or court thereby takes upon itself the burden of corporate management and deprives the corporate officers of that privilege. In effect, it is substituting the judgment of the commission or court for the judgment of the corporate management as to the pro-

priety of the arrangements made to give effect to a business policy which is concededly sound by the electrical engineers who testified and is the economic cornerstone in the plan for serving the communities in the system as a single unit.

III.

Value of Property.

Third Assignment of Error (R. 176-178).

The court erred in finding the value of the appellant's used and useful property in the following particulars:

In finding (a) the fair value of appellant's entire electrical property was $4,594,887.00 when it was, in fact, of the fair value of not less than $5,556,091 (R. 176).

The only appraisals of the whole electrical property operated as a unit were those of Spooner & Merrill (R. 275) and Stone & Webster (R. 277). The master disregarded the Stone & Webster appraisal which was about 5% higher (R. 219) than the Spooner & Merrill appraisal. The master found a value of $4,594,887. (R. 130, 131) which was 82.7% of the Spooner & Merrill appraisal for no better reason than this: that he had found the value of the Martinsville local property to be $102,947 which was 82.7% of the Spooner & Merrill appraisal of $135,402. But even after the master had thus arbitrarily reduced the value of the property he found that appellant in 1929 realized a return of only 4.15% (R. 131) on its entire property.

A summary of the appraisals appears at page 19 of this brief.

The master used a method similar to that of the Public Service Commission of Missouri in *Southwestern Bell*

Telephone Co. v. *Public Service Commission*, 262 U. S. 276, at 283 and 284.

There is no evidence to support the finding of the master as to the value of the entire property. The original cost of the plant and property on April 30, 1930 as carried on the books of the appellant was $5,235,900.94, of which $4,904,686.94 was electric utility property. (R. 232 and 280). This does not include working cash, materials and supplies or going value. (R. 280). The total securities authorized by the Public Service Commission of Indiana during the years 1923 to 1927 (R. 281 to 287) to be issued by appellant for the acquisition of its property (R. 281) was $5,088,100. (R. 232). The evidence of original cost, capitalization and earnings (R. 280) support a valuation of not less than $5,556,091 fixed by Spooner & Merrill.

In *City of Knoxville* v. *Knoxville Water Co.*, 212 U. S. 1, at page 8, the court said:

> "In view of the character of the judicial power invoked in such cases it is not tolerable that its exercise should rest securely upon the findings of the master, even though they be confirmed by the trial court. The power is best safeguarded against abuse by preserving to this court complete freedom in dealing with the facts of each case."

The court erred (b to e) in finding the value of the several parts of the appellant's property (R. 176-177); (f) in accepting the opinion of Abbett (R. 177) against all of appellant's evidence (R. 100), and (g) in finding that the unit prices used in making up the appraisal of Stone & Webster were too high (R. 177), the amounts added by them for general construction costs were unwarranted and that their allowance for organization, working capital, cost of financing and going value was exorbitant and un-

reasonable in each case, and that the findings of the witness Abbett in such respects were fair and reasonable. A summary of the appraisals and valuations appears at pages 19, 23, 25 of this brief.

The court accepted (R. 94 and 100) the opinion of the witness Abbett (R. 242) as to the principal items of property. On a few minor items where his value was obviously indefensible the opinion of Spooner & Merrill was adopted. The appellant offered the testimony of Charles W. Spooner (R. 195), Donald M. Cook (R. 208), William V. Burnell (R. 218) and Carl J. Sittinger (R. 223) appraisal engineers of wide experience. The master and the court in the main brushed appellant's evidence aside and accepted the opinion of the witness Abbett. It is strange that on a question of opinion as to value of property the opinion of one man should be accepted and the opinion of four men of much greater experience ignored. How Abbett could be 100% correct and the other four wrong throughout cannot be understood. This appears even more extraordinary when, as in this case, the book value, capitalization, earnings and orders of the Public Service Commission of Indiana authorizing appellant's securities support the opinion of appellant's witnesses.

Mr. Abbett is a young man of slight experience as compared with the four witnesses produced by appellant (R. 243 and 252). Abbett graduated from Purdue University as an engineer in 1916, watched switches a short time in a plant of the Indianapolis Light and Heat Company, went into the army, taught school and in 1919 became an assistant to the engineering staff of the Public Service Commission of Indiana, which position he still holds. During his connection with the commission he has been connected with about 100 appraisals of utility property. (R. 243). He has had no construction experience except in school

and his opinion on prices is based on catalogues and quotations, and his opinion on labor performance on mathematical calculations.

The appellant's witnesses are men known and generally recognized as engineers of standing and ability. Messrs. Spooner and Cook are graduates of the engineering school of the University of Michigan. Mr. Spooner (R. 195 to R. 197) has had practical experience as an electrical engineer since 1906 and Mr. Cook (R. 208) since 1915. They have both been intimately acquainted with appellant's property for the last ten years, during which most of it was built. Both have made appraisals of utility properties for rate cases, security issues, bank loans and purchases. The witnesses Burnell (R. 218) and Sittinger (R. 223) of Stone & Webster are two of the best qualified and best known appraisal engineers in the country. The master disregarded their testimony altogether, and the court approved his finding. Burnell graduated in 1904 and has been actively engaged since then in engineering work. Sittinger has had over 20 years' experience. The Stone & Webster organization is known by reputation throughout the world. The off-hand manner in which the master disposed of their evidence and disregarded their years of experience does no credit to his judgment and renders his findings indefeasible.

The witnesses Burnell (R. 218) and Sittinger (R. 223) who testified to the appraisal by Stone & Webster are men of unquestioned integrity and of very wide experience. Their appraisal was approximately 5% higher than the appraisal of Spooner & Merrill (R. 219). The reasons given for rejecting their testimony is not supported by the record in any respect but is simply the arbitrary and wilful determination of the master to disregard their testimony and opinion as to value and accept that of the wit-

ness Abbett. When all the corroborating facts as to book value, capitalization, earnings and orders of the Public Service Commission authorizing appellant's securities support the opinions of the appellant's witnesses there was no basis for the master and court to disregard their testimony and it was error to do so.

Cost of Financing.

The court erred (h) in finding that no costs of financing would be incurred in reproducing any of appellant's property, and in refusing to allow anything therefor; and in overruling appellant's exception number seven to that part of the report of the Special Master which finds that in fixing values on appellant's property for the purposes of this case, nothing should be included for the cost of financing. (R. 178).

Appellee's witness Abbett included nothing in his appraisal for cost of financing, but he admitted that a cost of financing would be incurred. (R. 258). The appellant's witness Cook (R. 210) testified that he arrived at the cost of financing by using the figures of Mr. Pennington and Mr. Kelley which, by arithmatical calculation is an average of 3.8% of the securities as a whole. Mr. Cook testified that he included nothing for cost of financing the common stock. The witness Burnell (R. 220) testified that he placed the cost of financing at the very conservative estimate of 5%. The witness Pennington (R. 193), engaged in marketing utility securities during the last eight years, testified that the selling cost of appellant's preferred stock would be from 5% to 10% of the par value, and the witness Kelley (R. 194) engaged in marketing utility securities during the last five years, testified that the selling cost of appellant's bonds would be from 4% to 5%. The cost of financing allowed in the appraisal of Stone & Webster (R. 277) is $270,000; and that allowed in the appraisal of

Spooner & Merrill is $182,185. (R. 275). As said by the Supreme Court of Pennsylvania, "Everybody knows that expenses are necessarily incurred" in the sale of securities. That court in *Bew Avon Borough* v. *Ohio Valley Water Co*,. 271 Pa. 346, 114 Atl. 369, at 373 said:

> "The last of the five questions is whether or not brokerage on the sale of the bonds of the water company should have been allowed? The Commission says that sufficient evidence of actual payment thereof was not produced, but everybody knows that expenses are necessarily incurred in such sales; even our Victory and Liberty Bonds could not be marketed except at a very heavy cost. There is no legal principle standing in the way of making a proper allowance therefor, and it is difficult to understand the basis of the mistake of those who hold it should not be allowed. The matter is in the same situation as if appellee had placed its bonds in the hands of an agent, with direction to sell them and apply the proceeds, as needed, for construction expenses. These bonds were all that the water company had to apply in payment of the plant, and the use thereof for this purpose, in the final analysis, constituted simply an exchange of one for the other. If it had been remembered that money itself has no value except that given to it by reason of the fact that other commodities can be obtained in exchange for it, the error of refusing to allow this as a principal expense would probably not have been made."

The decisions in *Galveston Electric Company* v. *Galveston*, 258 U. S. 388, at 397, and *Vincennes Water Supply Company* v. *Public Service Commission*, 34 Fed. (2d) 5, at page 9, seem to have eliminated the cost of financing from property valuations, giving as the reason that no actual

expense of financing was shown in the original building or acquisition of the properties. These cases overlook the fact that it is a hypothetical reproduction cost—not original actual cost—that is the subject of immediate inquiry. In determining the amounts to be included for other elements of reproduction cost, original cost is not controlling. It follows logically that the same rule should be applied with reference to financing costs as is applied to an estimate of the reproduction cost of the physical elements of the property.

IV.

Rate Case Expenses.

Fourth Assignment of Error (R. 178).

The court erred (M. F. 31, R. 113-116; C. F. 15, R. 168) in finding that only $4,000.00 should be charged to operating expenses for the expenses of this rate case and in overruling the appellant's exceptions, numbers 19 and 20 (R. 138 and 139) to that part of the report of the special master so finding, when the actual expenses were shown to be in excess of $60,000.00. (R. 237, 313, 314 and 317).

The commission by its order of January 26, 1929, directed that the rate case expense charged to Martinsville be amortized over a period of ten years and should not exceed $400.00 per year. (R. 52). By the same order the commission required appellant to pay to the State of Indiana $1,000.00 costs for the appraisal by the commission of appellant's local property at Martinsville (R. 52). The commission appraised appellant's local Martinsville property at $87,000.00 (R. 45). The expenses actually incurred in this rate case by appellant for the years 1927 and 1928 while the matter was before the commission as shown by the itemized statement (R. 317), were $25,972.64.

This case was instituted February 27, 1929, and after a hearing before the master the court allowed the master, for taking and reporting the evidence with his findings and conclusions, the sum of $4,500.00 (R. 142). Although these two single items of costs (*i. e.* $1,000.00 for the commission appraisal and $4,500.00 for the master's fees) aggregate $5,500.00 and alone exceed the allowance made by the commission, nevertheless the master (R. 116) and the court (R. 168) held that an allowance of $400.00 per year for ten years was a sufficient allowance on account of expenses reasonably incurred on account of this rate inquiry.

The appraisal of the power system property was admittedly necessary under the findings of the master and the court, the value found by the master and the court being $3,066,395 (R. 99 and 164). Allowing for this appraisal at the rate of charge of $1,000.00 for each $87,000.00 of value (being the rate allowed by the commission for the appraisal of the Martinsville local property) would add for the appraisal of the power system a charge of $35,000.00. The evidence of Mr. Schiesz is that the actual expenses of the rate case to May 31, 1930 were approximately $60,000.00 (R. 237). This is not questioned or disputed in any way. Appellee's Exhibit 111 (R. 317) shows itemized expenses in 1927 and 1928 aggregating $25,972.64 and Exhibit 107 (R. 313 and 314) shows $19,760.62 in 1929, making a total of $45,733.26. It is plainly apparent that either the allowance of fees by the commission for the appraisal and by the court for the master were exorbitant or the allowance of $400.00 for ten years was inadequate.

The appellant, in order to properly present the case, was obliged to secure appraisals by competent appraisal engineers, and the costs of its appraisals, witnesses and attorney fees are all proper items of expense. It did

not start the controversy. It had a right and a duty to defend itself.

The hearing before the commission took seven days. (R. 24 and 25). The evidence before the master commenced September 2, 1930 and was concluded September 19, 1930 (R. 73). The argument before the master was heard on December 18 and 19, 1930 (R. 73). The master was engaged eighteen days in preparing his findings and conclusions (R. 132). The master's findings were filed July 2, 1931 (R. 72 to 133) and the appellant filed exceptions July 22, 1931 (R. 133 to 141). The case was argued before the three judge court December 18, 1931 and an opinion and findings filed February 26, 1932 (R. 142 and 156). On May 10, 1932 this appeal was taken (R. 172). The transcript of testimony contained 2360 pages. In addition appellant introduced 34 exhibits and the defendant 41 exhibits. The inventories and appraisals contain approximately 1500 pages. The abstract has been condensed to 330 printed pages. This summary recital shows a large volume of work and a casual examination of the record is sufficient to support the expenses charged. There is no proof or even attempt to prove any abuse of discretion on the part of the corporate management in the matter of rate case expense.

Rate case expense has always been recognized as a proper operating expense and when it is large it should be amortized. It is more frequently amortized in 5 years rather than in 10 years, as was ordered in this case. The appellant is not complaining as to the ten year period but is complaining as to the amount. The allowance should not have been reduced beyond the actual expenditures proven which are not less than $60,000.00 and the annual amount to be amortized over the ten year period should be not less than $6,000.00 per annum.

In *Monroe Gas Light & Fuel Co.* v. *Michigan Public Utilities Commission,* 11 Fed. (2d) 319, 325, in discussing rate case expenses, the court said:

> "* * * we see no reason why the discretion of the utility managers should have been revised. It is to be remembered, as has often been said, that the commission is to regulate rates but not to manage the business. The extent to which the utility managers should * * * go *in defending what are claimed to be their stockholders' rights,* are matters peculiarly of business management. * * * As to all disbursements actually made within the limits of good faith, the managers' discretion must stand, unless it is abused. Particularly as to the cost of contest before the commission and the courts, it goes without saying that power by the commission to prevent the expenditure of reasonably necessary amounts cannot be assumed."

Rate case expense is recognized as a proper operating expense and when it is large it should be amortized, usually over a period of five years.

Greencastle Water Works Co. v. *Public Service Com.,* 31 Fed. (2d) 600 at 605.

New York & Queens Gas Co. v. *Prendergast,* 1 Fed. (2d) 351 at 375; P. U. R. 1924-E 59, 68.

Monroe Gas Light & Fuel Co. v. *Michigan Public Utilities Com.,* 11 Fed. (2d) 319 at 325; P. U. R. 1926-D 13, 25-6.

West Palm Beach Water Co. v. *West Palm Beach,* P. U. R. 1930-A 177 at 215. ($14,963.23 allowed for expenses)

Denver Union Stock Yards Co. v. *United States,* P. U. R. 1932-C 225 at 251. ($41,000.00 allowed for expenses.) 57 Fed. (2d) 735.

Brooklyn Borough Gas Case (Per Hughes) P. U. R. 1918-F 335, 358 ($8,648.00 per year for 5 years)

New York & Richmond Gas Co. **v.** ***Prendergast,*** **10 Fed. (2d) 167 at 181-2.**

Consolidated Gas Co. **v.** ***Newton,*** **267 Fed. 231, 255-6; Aff. 258 U. S. 165.**

Brooklyn Borough Gas Co. **v.** ***Prendergast,*** **16 Fed. (2d) 615 at 623.**

Mobile Gas Co. **v.** ***Patterson,*** **293 Fed. 208, 224. ($25,000.00)**

Illinois Commerce Commission **v.** ***Streator Aqueduct Co.,*** **295 Fed. 385, 391.**

The commission is not the financial manager of the corporation and it is not empowered to substitute its judgment for that of the directors of the corporation, nor can it ignore items charged by the utility as operating expenses unless there is an abuse of discretion in that regard by the corporate officers.

Southwestern Bell Telephone Co. v. *Public Service Com.,* 262 U. S. 276 at 289.

Columbus Gas Light Co. v. *Public Service Com.,* 193 Ind. 399 at 404; 140 N. E. 538 at 540.

Public Utilities Com. v. *Springfield Gas & Electric Co.,* 291 Ill. 209, 234; 125 N. E. 891, 901.

Banton v. *Belt Line Ry.,* 268 U. S. 413 at 421.

Pittsburgh & Potomac Telephone Co. v. *Manning,* 186 U. S. 238 at 248.

People v. *Stevens,* 197 N. Y. 1; 90 N. E. 60 at 63.

Denver Union Stock Yards Co. v. *U. S.,* P. U. R. 1932-C 225 at 251. 57 Fed. (2d) 735.

Re Milwaukee Electric Ry. & Light Co., P. U. R. 1913-E 289 at 296.

V.

Rate of Return.

Fifth Assignment of Error (R. 178).

The court erred (M. F. 36, R. 118 and 119, C. F. 14, R. 168) in finding that a return of 7% upon the fair value of the property used and useful in the public service is a reasonable return and in overruling appellant's exception 21 (R. 139) to that part of the report of the special master so finding, when, in fact, a return of not less than 8% should have been allowed in order to avoid confiscation of appellant's property. (Testimony Spooner 195 and Burnell R. 218).

The appellees' witnesses, Abbett (R. 250), Wenger (R. 263), Husselman (R. 267) and Carter (R. 273) all testified that 7% per annum would be a fair rate of return on the property and 4% would be a fair amount for depreciation. The appellees' witnesses did not make any allowance for the accumulation of a surplus. The appellant's witness Spooner (R. 207) testified that it is necessary to have a rate of return of 7% per annum to take care of bond interest, debt discount, borrowed money and dividends, and that to accumulate a surplus the rate of return should be not less than 8% based on the fair value determined for rate making purposes. The appellant's witness Burnell (R. 221) testified that 8% was a fair return to enable the utility to live and continue to operate, and the witnesses Sittinger (R. 227) and Schiesz (R. 235) made their calculations on an 8% return.

In *United Railways* v. *West*, 280 U. S. 234, at 251-52 a rate of less than 7.44% was held confiscatory. The court said:

> "* * * Sound business management requires that after paying all expenses of operation, setting aside the necessary sums for depreciation, payment of interest and reasonable dividends, there should still remain something to be passed to the surplus account; and a rate of return which does not admit of that being done is not sufficient to assure confidence in the financial soundness of the utility to maintain its credit and enable it to raise money necessary for the proper discharge of its public duties. * * *"

In *McCardle* v. *Indianapolis Water Co.*, 272 U. S. 400, at 419, seven per cent was approved with the observation that recent cases support a higher rate of return. The cases there cited in a note are:

Lincoln Gas Co. v. *Lincoln*, 250 U. S. 256, 267 (7 to 8%).

Galveston Elec. Co. v. *Galveston*, 258 U. S. 388, 400 (8%).

Bluefield Co. v. *Public Service Commission*, 262 U. S. 679, 692, et seq.

Landon v. *Court of Industrial Relations*, 269 Fed. 433, 455 (8%).

Minneapolis v. *Rand*, 285 Fed. 818, 830 (8%).

Mobile Gas Co. v. *Patterson*, 293 Fed. 208, 221 (8%).

Southwestern Bell Telephone Co. v. *City of Ft. Smith*, 294 Fed. 102, 108 (8%).

New York Telephone Co. v. *Prendergast*, 300 Fed. 822, 826 (8%).

Southern Bell Tel. & Tel. Co. v. *Railroad Com.*, 5 Fed. (2d) 77, 88-89 (8%).

Brooklyn Union Gas Co. v. *Prendergast*, 7 Fed. (2d) 628, 672 (8%).

An eight per cent return was allowed in the following cases:

Brush Electric Co. v. *Galveston*, 262 U. S. 443, 445 (8%).

Consolidated Gas Co. of N. Y. v. *Prendergast*, 6 Fed. (2d) 243, 273-4, 280 (8%).

Springfield Gas & Elec. Co. v. *Public Service Com.*, 10 Fed. (2d) 252, 255 (8%); P. U. R. 1926-C 858, 864.

Kings Co. Ltg. Co. v. *Prendergast*, 7 Fed. (2d) 192, 194-5, 218 (8%) aff. 272 U. S. 579.

New York & Richmond Gas. Co. v. *Prendergast*, 10 Fed. (2d) 167, 186-7 (8%).

United Fuel Gas Co. v. *Public Service Com.*, 14 Fed. (2d) 209, 212; aff. 278 U. S. 322 (8%).

Brooklyn Borough Gas Co. v. *Prendergast*, 16 Fed. (2d) 615, 622, 638 (8%).

Interborough Rapid Transit v. *Gilchrist*, 26 Fed. (2d) 912, 924-5 (8%).

New York Telephone v. *Prendergast*, 36 Fed. (2d) 54, 67-9, (7% for telephone proper even though gas and electric companies entitled to 8%).

Michigan Bell Telephone Co. v. *Odell*, 45 Fed. (2d) 180, 182-3 (7%).

Denver Union Stock Yards v. *U. S.*, P. U. R. 1932-C 225, 238, 252, 57 Fed. (2d) 735, 745 & 754 (7½%).

New York & Queens Gas Co. v. *Prendergast*, 1 Fed. (2d) 351, 370 (8%).

VI.

What Will the Rates Yield?

Sixth Assignment of Error (R. 178).

The court erred in holding that the rates complained of would have yielded a fair rate of return, when in fact the rate of return would be less than fair and reasonable and would not exceed 5 per cent.

If appellant's entire electrical property, operated as a single unit, is held to be the rate base, then it is unquestionable that the rates will not yield a fair rate of return. In such event the rates are obviously confiscatory. This clearly appears under Point I, supra, of this argument and need not be repeated here. We merely desire to add that this contention is strongly corroborated by the uncontradicted evidence which shows (R. 280), that from 1923 to 1930 appellant has only paid dividends at an average rate of 4.36 per cent on the average amount of the par value of its common stock outstanding during that period. A summary, in comparative form, of the appraisals of the entire electrical property, with a statement of the revenue and expenses of the entire system, appears at pages 19, 21 of this brief.

If Martinsville is to be segregated from the remainder of appellant's operating unit, upon a proper allocation of the property in accordance with actual use, and upon charging a fair and reasonable "gateway" price for electrical energy, it will be shown that the rates are confiscatory.

A summary, in comparative form, of the appraisals of the Martinsville local property, with the finding of the master, appears at page 25 of this brief.

A summary, in comparative form, of the appraisals of the power system property, with the finding of the master, appears at page 23 of this brief.

If Martinsville is to be separated from the operating unit, then we believe that we have shown under Point II above that not less than 6.63 per cent of the power system property should be allocated to Martinsville use, instead of 3.3 per cent used by the master and the court. Appellant submits that in such event the property used and useful in serving Martinsville should be valued as of May 1, 1930, as follows:

Martinsville local property as appraised by Spooner & Merrill	$135,402.00
Allocation of 6.63 per cent of power system property as appraised by Spooner & Merrill	241,176.19
Martinsville rate base	$376,578.19

This valuation should be allowed instead of $204,138 (R. 167) fixed by the master and approved by the court.

The depreciable property included in the Spooner & Merrill appraisal of the Martinsville local property is $100,283 and 6.63 per cent of the depreciable power system property, included in the Spooner & Merrill appraisal, is $187,632.24, making the total depreciable property allocated to Martinsville $287,915.24.

The District Court tested the rates by charging power to Martinsville at $.0133 per kilowatt hour. We believe we have shown under Point II above that a fair charge for the electrical energy served to Martinsville would be not less than $.024996 (R. 289). This price is fixed on the basis of eliminating inter-utility deliveries (R. 289).

We believe that this is a fair method of determining the cost at the "gateway" but inasmuch as the appellees contend that an unfair burden is placed on the customers by eliminating inter-utility deliveries, the appellant has, by Exhibit 28 (R. 300) determined the cost on the basis of eliminating that part of the 66 k. v. line between Clinton, Attica and Lafayette used to make interutility deliveries, as well as the inter-utility deliveries. On the basis of eliminating both the property used in inter-utility deliveries and the inter-utility deliveries it appears (R. 300) that the cost of electrical energy delivered at the Martinsville "gateway" is $.022897 per kilowatt hour. Therefore in making the following statements appellant will use the price of $.022897 per kilowatt hour, although appellant believes that the charge of $.024996 per kilowatt hour is fair.

The revenue from the rates complained of, and expenses for the calendar year 1929 are shown to be as follows:

Operating Revenue (R. 168)		$84,750.13
Expense:		
Power—2,532,798 k. w. h. at $.022897 per k. w. h.	$57,993.47	
Other expenses, including taxes	21,349.05	
Rate case expense (R. 114)	5,180.65	
Annual depreciation—4% of $287,915.24	$11,516.60	96,039.77
Deficit		*$11,289.64

* In red.

The revenue from the rates complained of, and expenses for the year ending May 31, 1930, are shown to be as follows:

Operating Revenue (R. 168)		$81,868.72
Expenses:		
Power—2,528,511 k. w. h. at $.022897 per k. w. h.	$57,895.31	
Other expenses, including taxes	20,624.18	
Rate case expense (R. 237)	6,235.98	
Annual depreciation—4% of $287,915.24	11,516.60	96,272.07
Deficit		*$14,403.35

* In red.

The following comparative statements show the differences between appellant's statements and the tests applied by the court for the same periods (R. 168 and 169):

For the calendar year 1929:

Statement by District Court			Statement by Appellant	
$84,750.13		Operating Revenue		$84,750.13
	$33,726.13	Expenses—Power	$57,993.47	
	21,349.05	Other expenses, including taxes	21,349.05	
	400.00	Rate Case Expense	5,180.65	
62,250.54	6,775.16	Annual Depreciation	11,516.60	96,039.77
$22,499.59—Net			Deficit—*$11,289.64	

* In red.

For the year ending May 31, 1930:

$81,868.72		Operating Revenue		$81,868.72
	$33,629.20	Expenses—Power	$57,895.31	
	20,624.18	Other expenses, including taxes	20,624.18	
	400.00	Rate Case Expense	6,235.98	
61,428.54	6,775.16	Annual Depreciation	11,516.60	96,272.07
$20,440.18—Net			Deficit—*$14,403.35	

* In red.

The results prove conclusively that the segregating method is erroneous.

Minnesota Rate Cases, 230 U. S. 352, 460.

First, the master was obliged to admit that even after he had improperly reduced the appraised value of the appellant's entire property, the net revenue for the year 1929 was equivalent to a return of only 4.15 per cent (R. 131).

Second, the statement by the district court for the year 1929 shows that there would have been a net revenue available for return on the Martinsville property of $22,499.59, which is equivalent to 11 per cent on the value fixed by the district court (R. 168 and 169).

Third, the adjusting of these statements to give effect to the methods used by appellant in segregating the Martinsville property shows the Martinsville revenue was not sufficient in 1929 to pay the operating expenses, there being a deficit of $12,108.09.

When the master and court included the deliveries to other utilities in allocating the property, they allocated

one-half the power system property to inter-utility deliveries, when the undisputed evidence shows that only 89.44 per cent of the 66 k. v. line between Clinton, Attica and Lafayette is used for inter-utility deliveries and that the full value of 89.44 per cent of this transmission line is $905,979 (R. 304). It is therefore clear that the method used by them was wrong. The appellant, to meet this contention of the appellees, prepared Exhibit 28 (R. 299), by which there is eliminated from the rate base that part of the property used for inter-utility deliveries. The power sold to the affiliated utilities is credited to expense and the cost of the power delivered at the "gateways" is then divided by the number of kilowatt hours sold to all "gateways" of appellant's system, resulting in a price of $.022897 per kilowatt hour. This apportionment is clearly in accordance with actual uses and results in showing that the Martinsville revenue is not sufficient to pay the expenses of operating the Martinsville property. If it is mutually conceded that the tests applied for segregating the Martinsville property are all reasonable, then the results are at such variance that it is obvious that the principle of segregation must be wrong. The difference in the cost of power alone wipes out the net shown by the district court in its statements. The difference in the items of rate case expense and actual depreciation amounts to substantially one-half the net shown in the statement made by the district court. The rate base proposed by the district court is only 54 per cent of the rate base when the property is segregated in accordance with actual use as proposed by appellant.

The results are so variant from the system operations that it is only fair to conclude (1) that segregation of the Martinsville property is impracticable and should not be countenanced, and (2) that if segregated on the basis of actual use the rates are confiscatory.

VII.

The Rates are Confiscatory.

Seventh Assignment of Error (R. 178).

The points made in the argument lead to the conclusion that the rates fixed by the Public Service Commission in its order made January 26, 1929, are confiscatory and deprive appellant of its property without due process of law and deny it the equal protection of the law contrary to the Fourteenth Amendment to the Constitution of the United States.

The judgment of the district court should be reversed and the cause remanded with proper directions.

Respectfully submitted,

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APPENDIX.

Statutes Cited.

The Public Service Commission Act of Indiana, commonly known and referred to as the Shively-Spencer Utility Commission Act, became a law May 1, 1913.

Section 1. "That the term 'public utility,' as used in this act, shall mean and embrace every corporation, * * * that now or hereafter may own, operate, manage or control any * * * plant or equipment within the state * * * for the production, transmission, delivery or furnishing of heat, light, water or power, * * * either directly or indirectly, to or for the public.

* * *

"The term 'municipality,' as used in this act, shall mean any city or town wherein property of a public utility or any part thereof is located.

* * *

"The term 'service' is used in this act in its broadest and most inclusive sense and includes, not only the use or accommodation afforded consumers or patrons, but also any product or commodity furnished by any public utility and the plant, equipment, apparatus, appliances, property and facility employed by any public utility in performing any service or in furnishing any product or commodity and devoted to the purposes in which such public utility is engaged and to the use and accommodation of the public.

* * *

"The term 'indeterminate permit,' as used in this act, shall mean and include every grant, directly or indirectly, from the state to any corporation, * * * of power, right or privilege to own, operate, manage or control any plant or equipment, or any part of a plant or equipment, within this state, for the production, transmission, delivery or furnishing of heat, light, water or power, either directly or indirectly, to or for the public, * * * which shall continue in force until such time as the municipality shall exercise its option to purchase, as provided in this act, or until it shall be otherwise terminated according to law. This act shall be commonly known and referred to as the Shively-Spencer Utility Commission Act."

Vol. 3, Burns' Anno. Ind. Stats., 1926 Ed. Sec. 12672.

Section 9. "The Commission shall value *all* the property of every public utility actually used and useful for the convenience of the public."

Vol. 3, Burns' Anno. Ind. Stats., 1926 Ed. Sec. 12680.

Section 11 provides that within five days after such valuation is determined, a statement thereof shall be filed with "* * * the clerk of each municipality in which *any part* of the plant or equipment of such utility is located."

Vol. 3, Burns' Anno. Ind. Stats., 1926 Ed. Sec. 12682.

Section 12. "The commission may, at any time, on its own initiative, make a revaluation of such property."

Vol. 3, Burns' Anno. Ind. Stats., 1926 Ed. Sec. 12683.

Section 18 provides that the utility shall have an office "• • • in one of the towns or cities of this state in which its property, or *some part thereof*, is located and shall keep in said office all books, accounts, papers and records."

Vol. 3, Burns' Anno. Ind. Stats., 1926 Ed. Sec. 12689.

Section 41 of the act provides that every public utility shall file with the commission schedules showing all rates "• • • which it has established and which are enforced at the time for any service performed by it *within the state.*"

Vol. 3, Burns' Anno. Ind. Stats., 1926 Ed. Sec. 12712.

Section 47. "It shall be unlawful for any public utility to charge, demand, collect or receive a greater or less compensation for any service performed by it within the state, or for any service in connection therewith, than is specified in such printed schedules, including schedules of joint rates, as may at the time be in force, or to demand, collect or receive any rates, tolls or charges not specified in such schedule. • • •"

Vol. 3, Burns' Anno. Ind. Stats., 1926 Ed. Sec. 12718.

CHARLES ELMORE CROPLEY
CLERK

IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, A. D. 1932.

No. 128

WABASH VALLEY ELECTRIC COMPANY,
Appellant,

vs.

RALPH M. YOUNG, (substituted for Frank T. Singleton) *et als.*,
Appellees.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF INDIANA.

REPLY BRIEF FOR APPELLANT.

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REPLY BRIEF FOR APPELLANT.

Appellees' statement mingles conclusions and arguments with the facts in such a manner as to make them inseparable. We shall reply to the ones we consider material.

Rate making is a legislative function. But neither the Indiana statutes nor the order of the commission fixing electrical rates for Martinsville binds the court to Martinsville as a rate base area. Appellees fail to distinguish between the legislative nature of the proceedings before the commission and the judicial nature of a suit in court charging confiscation. *Prentis* v. *Atlantic Coast Line,* 211 U. S. 210, 226-227. There is no issue in this judicial proceeding as to the area for which the commission may prescribe rates by any particular order. The issue here, where the charge is confiscation, is whether the electrical rates fixed by the commission for Martinsville are to be tested as to their constitutionality by their effect on the Martinsville local property and a segregated portion of the power system property allocated to the Martinsville service; or are to be tested in connection with the rates in effect in the other portion of the area served by appellant's system by the relation which the net revenue from all of appellant's electrical service bears to the value of all of appellant's property used and useful as a single interconnected electrical operating unit in rendering such service, as appellant has claimed from the outset before the commission (R. 20 and 21), the master (R. 110) and the district court (R. 146).

The caption, "appellant's property not single physical and economic system" (Bf. p. 3) is not supported by the statement which follows it. From that statement it

is clear, rather, that appellant's property is exactly the single physical and economic system which appellant claims. Indeed, appellees themselves refer to it as an "integrated parcel" of a larger power system serving many communities in Indiana. They do not dispute the fact that appellant's property is physically interconnected throughout. They do not deny that its parts are economically interdependent. They point out merely, that it is affiliated with and operated in conjunction with a number of other similar interconnected electrical systems. We have not denied this or minimized it. On the contrary, we have emphasized it, for it is the key to much that we have contended for in our original brief. This court has no basis in the evidence, or in anything contained in appellees' brief, for considering appellant's property as anything other than a single physical and economic unit.

Appellees assert that this "case concerns only rates fixed for service in Martinsville" (Bf. p. 4). True, the petition before the commission was by seventeen residents of that city and the only rates mentioned were rates in Martinsville; but it is almost naive for appellees to assert, upon the basis of this circumstance, that the constitutional question here presented is limited accordingly. As a matter of local procedure, it was competent for ten or more individuals to invoke the jurisdiction of the Public Service Commission by complaining of any rate or rates which directly concerned them. It did not follow that the commission could act upon their complaint without regard to the constitutional rights of appellant. This court has pointed out that no power resides in a state to accomplish, through the device of relying upon its local forms, that which the constitution of the United States forbids. (*Brooks-Scanlon Company* v. *Railroad Commission*, 251 U. S. 396, 400). Appellees' further statement,

"No effort was made (before the commission) by either side to bring rates applicable elsewhere in review for possible adjustment," (Bf. p. 5) strangely ignores paragraph 3 of appellant's answer before the commission (R. 20-24), and the extended argument of the commission itself (R. 29-32) on this identical subject.

Appellees' attempted explanation of "how the new rates were determined by the commission" (Bf. p. 5) can only be regarded as a somewhat unhappy effort which quite fails to achieve an explanation, for they are compelled to confess that "it is not entirely clear" how the commission arrived at the gateway charge of $.0172. They can account, as we can, for $.0139 of the figure but the remainder of $.0033, which the commission added, arbitrarily and with no evidentiary support, to cover depreciation and return on power system property, they neither explain nor seek to defend.

Appellees' assertion (Bf. p. 29) that the master in his calculations used actual cost of electrical energy "as carried on books of company" may easily be misunderstood, and calls for comment. As explained at pages 11 and 64 of appellant's brief, in the testimony (R. 310 and 311) and by the master himself (R. 127-128) the supposed "gateway" cost "as carried on books of company" is nothing more than a bookkeeping figure representing the average cost to appellant of all electrical energy supplied, including deliveries to affiliated utilities. If appellant's constitutional rights were to be subverted by bookkeeping averages compiled for managerial convenience it would hasten to set up its books in such a way as to restore the working of the constitutional guaranties. The facts have been fully explained in appellant's original brief, and the master's characterization of his cost figure of $.0133 as the com-

pany's cost of energy "as shown by its own books" (R. 127) is merely a characterization, and nothing more.

Appellees at page 35 of their brief repeat their previous denial that appellant's property is a physical and economic unit; and yet one wonders after reading the ensuing discussion (pp. 35-39) as to the basis for the denial, for all of the facts which they recite serve only to emphasize the interconnected and interdependent character of the property. It is true, as they say (Bf. p. 39) that Martinsville is a distinct municipality and is a county seat. But this is a mere political fact. It neither adds to nor detracts from the indisputable fact that the physical equipment in that community by means of which energy is distributed to its residents is only a part of the much larger unit of physical equipment which appellant owns and operates as a single and indivisible mechanism. If Martinsville were not a county seat, if it were not even an incorporated municipality, appellant's economic and physical relations with the individuals residing in that geographical area would be in no way altered.

In making a "correction" of appellant's statement that it has established and maintained uniform rates from the same classes of service in cities, towns and communities of the same class, appellees (Bf. p. 40) do not deny that this is essentially true, but assert merely that it has been accomplished by appellant without resorting to a company-wide rate controversy. Just how this circumstance is supposed to detract from the truth of the admitted fact is not understood.

Neither is it apparent what is intended to be established by appellees' reference (Bf. p. 40) to the testimony of the witness Sittinger. The witness stated the obvious fact that if there were to be a gateway cost, based upon

the system as a whole, it would, of necessity, be the same for all cities and towns and all power customers, and he expressed the personal view that this result would be equitable; but he did not state that the same cost should prevail as to interutility deliveries of power. On the contrary, a reference to his testimony (R. 226-227) will show that he was pointing out, as an engineer, the practical impossibility, because of frequent changes in operating conditions, of making an allocation of a portion of the whole system to a particular city. If this case is to be determined by the personal views of witnesses as to what constitutes an equitable result, reference may be made to the views of appellees' witness Abbett, who, in tendering his advice as to how the case should be decided, did not contemplate putting everybody—big power users and Martinsville—on the same average rate, but thought that if some were served for less, others should pay more to make up the average (R. 257) and who doubted that the affiliated companies would take any power if required to pay the average rate (R. 256).

Appellees' quarrel (Bf. p. 40) with the word "offers," in connection with appellant's calculated Martinsville gateway cost of $.024996, descends almost to a quibble. It is quite true that "no such charge is made in fact" but it is also true that appellant does not offer energy at the Martinsville substation, for local distribution in Martinsville, at a cost of $.0133 per k. w. h., the cost claimed by appellees, there likewise being no such charge in fact. Both figures are calculated figures, arrived at by mathematical processes in an attempt to show what true cost is, all factors considered. Appellees seek to establish that the cost should be found by an averaging process, which includes all interutility and wholesale deliveries on a flat k. w. h. basis. Appellant insists upon a classification which

gives separate treatment to deliveries to affiliated utilities. The separate treatment is not only justified, but is imperatively required if a gross injustice is to be avoided. All of the evidence shows that appellant cannot secure energy for its customers at a low cost without joining with the affiliated utilities and maintaining its share of the transmission lines in its territory, whereby all are able to avail themselves of the economies of the Dresser plant.

Incidentally, appellees' discussion of this point contains an error of fact. They (Bf. p. 41) erroneously apply to deliveries to affiliated utilities a line loss figure of 10.7 per cent as representing energy lost in transmission. This is the average line loss for appellant's system as a whole (R. 291). The actual line loss on deliveries to Northern Indiana Power Company is only 2.1 per cent and on deliveries to Attica Electric Company 8.75 per cent (R. 108).

I.

The Operating Unit Is the Rate Base.

Appellees categorically deny (Bf. p. 72) the existence of any constitutional principle which precludes state authorities from forcing the earnings of a utility property as a whole to a confiscatory level by reduction of rates to certain selected consumers. They are driven to this denial, for despite their efforts to minimize and becloud the fact, the evidence shows and the master himself found that the earnings of the property as a whole in 1929—when the rates at Martinsville were higher than those here in question—were only 4.15 per cent upon the value as found by the master himself, a value which appellees are strenuously defending in other connections.

If there were no constitutional principle which precludes a state from confiscating property by acting upon only a portion of a utility's total rate structure, then much that has been said by this court in the past would be meaningless. This court has said that so long as the total revenue is enough to furnish a return upon the whole property it is not important that with relation to some customers the price is not enough (*Willcox* v. *Consolidated Gas Company*, 212 U. S. 19, 54); that it is enough if the commission shall so adjust street railway fares as to yield a fair return upon the property as a whole, even though a particular line which is an integral part of the system is not profitable at such fares (*United Railways* v. *West*, 280 U. S. 234, 252); that the correct test of the constitutionality of a state statute fixing railroad passenger fares is as to the effect of the act on the railroad's entire line and not upon a single part which was formerly acquired by consolidation (*St. Louis & San Francisco Railway* v. *Gill*, 156 U. S. 649, 665); that where a street railway company's earnings are remunerative as a whole, this court will not hold a commission's order fixing fares to be confiscatory by referring to its effect upon the earnings of certain specified lines which constitute only a part of the entire system (*Puget Sound Traction Co.* v. *Reynolds*, 244 U. S. 574, 580); that where a utility complains of a particular rate fixed by a commission but makes no claim that the loss alleged would render its business as a whole unprofitable and makes no showing as to the value of its entire property or of the rate of return being earned thereon, the evidence does not suffice to show the order legally unreasonable (*New York & Queens Gas Co.* v. *McCall*, 245 U. S. 345, 350). But these pronouncements cannot be true unless their necessary corollary is also true. The announcement of the principle, as Mr. Justice Holmes once

remarked, carries with it the necessity of accepting the next step which the logic of that principle requires. So, if it be true that the protection of the constitution may not be invoked to prohibit as confiscatory a rate affecting only a part of a utility's customers where the property as a whole is earning a fair return, it is also inevitably true that where the earnings on the property as a whole are already at a confiscatory level the constitution forbids the state to force such earnings still lower by singling out for decrease a single rate or group of rates applicable to only a part of the customers. If, as appellees say, there is no constitutional principle prohibiting such action in such circumstances, then the time has come to confess that a method has been found to accomplish public expropriation of private property without compensation without fear of federal intervention. Though a utility may have —as appellant has—lawfully extended its interconnected property over wide areas, with perfect legal right to do so, and with the express approval of the state authorities for the issuance of the securities with which to finance the operation, and with every economic and social justification for the undertaking as a whole, the way will still be open for subsequent state regulatory bodies to single out those congested geographical areas in which the earning power of the property is most assured, and by the device of theorizing as to the allocation of certain portions or percentages of the property to the use of these congested areas, reduce the revenue in such areas, leaving the remainder of the enterprise to languish and ultimately to be abandoned and withdrawn from the public service. This is not an alarmist picture. No business enterprise was ever conducted which did not show greater earning power in some branches and in some areas than in others. A company operating an extended interconnected electric util-

ity system is peculiarly subject to the necessity of looking to the revenue derived from the system as a whole because of the wide variations in the earning power of the property as between congested centers of population and thinly settled rural districts. If the destructive and antisocial doctrine contended for by appellees is to prevail, and an interconnected electric utility may no longer rely upon the earning power of its system as a whole, a vital blow will have been struck at the economic development of the electrical industry, the debilitating consequences of which will become progressively apparent in years to come.

The Fourteenth Amendment to the constitution provides that no state shall "deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws." As applied to this case, what property is protected?

Suppose the public service commission law permits one customer to file a complaint concerning the rates in which he is interested. Suppose a domestic lighting customer, living adjacent to the generating plant, makes such complaint. Can this customer validly assert that the only property to be valued is that necessary to serve him? Surely no one would contend that the issue was so limited. Why is it not so limited? The answer is not that a reasonable or practicable unit must be taken, nor that the statute fixes the rate unit. The reason is that the utility never dedicated its property to the service of one customer. The utility is serving the public. The property devoted to the service of the public as an operating unit is the rate base. In a confiscation case no part of that property can, as against the objections of the utility be made the rate base. The appellant in this case is not serving the 17 customers separately, who complained to the

Public Service Commission of Indiana concerning Martinsville electric rates. It is not serving the inhabitants of the city of Martinsville separately. It is serving no one customer, group of customers or classification of customers separately. It is serving no city or geographical subdivision separately. It is serving the public of 50 towns, cities and communities from one electrical property, interconnected throughout and constituting one integrated operating unit. It devoted its property in this operating unit to the public service. To dismember and break it down into several geographical units of utility service deprives the appellant, as owner of the property, of its right of management and control. To break up the system into rate units confiscates the only substantial value the property has—its earning power—by making it impossible for the appellant to earn on the part that serves the sparsely settled communities.

Appellees, denying the existence of effective power in the constitution to prevent the kind of confiscation which was practiced here, attempt to buttress their position by asking (Brief, p. 72-3) whether, if the Martinsville rates were twice as high as they are, "and thus admittedly unreasonably high," anything in the constitution would preclude an order lowering them, regardless of the effect upon the earnings of the property as a whole. We retort by asking who has "admitted" that such rates, considered in their effect on the earnings of the property as a whole, would be "unreasonably high"? Suppose this property were a local one, limited to Martinsville alone. Can it be said that the state would have power forcibly to lower one class of rates, say residential rates, over the company's objection that the earnings of the property as a whole should be considered, if the effect of this action, coupled with inaction or inadequate action as to the other classes

of rates, would be to reduce the earnings of the Martinsville property as a whole to a confiscatory level? An affirmative answer would leave the result—nothing less than a mockery—that when, as in the above cited cases, a utility seeks relief from certain rates on the ground that they are inadequate when considered in connection with a segregated part of its system, it is told to look to the earnings from the system as a whole; but when it seeks relief from the imposition of certain rates for particular customers because the earnings of its system as a whole are thereby rendered inadequate, it is to be told that the rates in question will not be disturbed if, when considered in relation to a segregated part of its system, which will be regarded as attributable to the use of those particular customers, they can be found compensatory. To put it shortly, if, on the one hand, a utility property is not protected piecemeal, but only as a whole, when piecemeal protection is sought, and if on the other hand, it is not to be protected as a whole, but only piecemeal, when protection as a whole is sought, then it is easy to see that a commission may achieve any rate reduction it desires by dealing with a utility's rates one at a time, and that all real protection of utility property is gone. This is exactly where appellees' argument leads. It is destructive doctrine, as destructive to the ultimate interest of utility consumers in whose supposed aid it is here invoked as to the interest of the utility investors against whom it is directed.

If appellees mean that a rate may in its nature be so "unreasonably high" that it is a constitutional thing, for that reason alone, for a commission to reduce it in disregard of the constitutional protection of private property, then we answer that there is no such rule, and could not be, for it would allow a commission a free hand at any

time to evade the constitution merely by invoking the rule. A rate may be unreasonably high from the standpoint of promotion of the company's business or of the personal fortunes of local politicians, but it is never, and can never be, "unreasonably high" in the constitutional sense if a forcible lowering of it would reduce the utility's earnings to the point of confiscation. For the devotion of the property to public service is not a compact to accept less than a fair return on it in any circumstances whatever. No matter how high the rates must be to show a fair return, the utility is entitled to place them that high and no power resides in the state to force them lower. A utility is not obliged in any case to operate its property for the benefit of those who do not care to pay for it (*Brooks-Scanlon Company* v. *Railroad Commission*, 251 U. S. 396, 399). This rule is a social necessity, for it is readily appreciated that under any other principle utility property would rapidly be driven from use and the service would cease. This court made it clear that all other considerations affecting charges for utility service must yield to the right of the owner of the utility property to realize a fair return upon it, when in *Atlantic Coast Line* v. *North Carolina Corp. Comm.*, 206 U. S. 1, 24-25, it said:

> "In a case involving the validity of an order enforcing a scheme of maximum rates of course the finding that the enforcement of such scheme will not produce an adequate return for the operation of the railroad, in and of itself demonstrates the unreasonableness of the order."

If appellees, by their example, wherein they assumed that Martinsville rates were twice as high as they are "and thus admittedly unreasonably high" mean that appellant must admit that such rates would be "unreasonably high" because they would produce such large net earnings upon

some segregated portion of appellant's property supposed to be attributable to Martinsville use, they are, of course, merely begging the question; for such rates could not be "admittedly" too high from that standpoint unless appellant had somewhere admitted the correctness and legality of the allocation basis of testing the rates—something appellant has consistently denied throughout this case.

Appellees in the end attempt to justify the action of the district court in separating Martinsville from the remainder of appellant's property by referring, as the district court did, to provisions of the Indiana statutes. Paragraphs 12773 and 12774 of Burns' Ann. Ind. St. (1926 ed.) provide that every franchise granted to a public utility shall have the effect of an indeterminate permit subject to the provisions of the utility act. Paragraph 12743 provides that the commission shall "by order fix just and reasonable rates * * * to be imposed, observed and followed in the future in lieu of those found to be unjust, unreasonable, * * *." Paragraph 12728 provides that upon complaint made "by any mercantile, argicultural or manufacturing society or by any body politic or municipal organization or by ten persons, firms, corporations or associations or ten complainants of all or any of the aforementioned classes, or by any public utility," that any rates in which the petitioner is directly interested, are unreasonable or unjustly discriminatory, the commission shall proceed to make such investigation as it may deem necessary. These are the provisions upon which appellees rely. From these provisions they argue that the municipality was designated as the ratemaking unit in utility regulation; and that appellant by accepting and operating under an indeterminate permit consented to fixing rates applicable only in Martinsville without reference to their effect upon its total revenue or earnings.

A short answer to the entire contention, even if this construction of the act were conceded *arguendo*, is that acceptance of a license or franchise will not require the party accepting it to respect or to comply with any provisions of the state statute that are repugnant to the constitution of the United States.

W. W. Cargill Co. v. *Minnesota*, 180 U. S. 452, 468.
Blake v. *McClung*, 172 U. S. 239, 255.

But looking at the statute itself it is apparent that appellees' construction of it is so far-fetched as to be wholly inadmissible. It seems as clear as the English language can make it that the statute merely specifies the persons or organizations who may appear before the commission as complainants. It contains no word or hint as to what shall constitute a ratemaking unit or what quantity of property shall be regarded as the rate base in any particular controversy. There is not one word, we submit, in the above quoted provisions which can be tortured into an agreement by an Indiana utility operating an interconnected system in two or more municipalities that a rate or rates charged by it in one of such municipalities may be forcibly lowered by considering only such part of the property as may be thought by some one to be useful to that municipality alone.

A few illustrations will show the highly imaginative character of appellees' reading of the above provisions. If ten merchants in Martinsville should complain of the commercial electric rate, would the rate unit be the city of Martinsville or would it be an allocation within that city of some portion of appellant's Martinsville property supposed to be capable of identification as useful to persons in Martinsville affected by the commercial rate? Or if ten residential customers complained of the residential rate, what would be the rate making unit and what prop-

erty would be considered the rate base for the determination of that narrow issue?

If a municipality is to be taken as the rate making unit, simply because of the circumstance that the statute permits a "municipal organization" to appear as a party complainant before the commission, a question still remains, *what* municipality is intended? A city in Indiana is a municipality. But so is a town (*i. e.* township)—a rural territorial division, governed by an elected trustee. And so is a county, which is governed by a board of elected commissioners. If the complainant before the commission chances to be a county, acting through its elected representatives, then does the county in that case become the ratemaking unit? If a town, acting through its elected trustee, should choose to appear and complain of rural rates charged within its boundaries—as it plainly could under the statute—would the town be the ratemaking unit, and would it be the duty of the commission to allocate a percentage of the total system to the use of that town? Does the ratemaking unit, in other words, depend upon which particular type of Indiana municipality or political subdivision—the statute expressly mentions political subdivisions as well as municipalities as being proper complainants—chances to appear before the commission? Is there to be a different ratemaking unit in each case, the nature and extent of the unit being controlled by the character of the complainant? Why select the city rather than the county or town as the only "municipal organization" intended? These are not frivolous inquiries. They are profoundly important, for they go to the very root of the district court's action, in spelling out of the statute the conclusion that the legislature intended the city to be the ratemaking unit. In Indiana a city is no more definitely a "municipal organization" than is a town or a county, and

certainly it is no more definitely a political subdivision than either of the others named. In Indiana there are many types of "municipal organization" and "body politics" *e. g.* counties, civil townships, civil cities, civil towns, school townships, school cities, school towns, or any other territorial subdivision of the state recognized or designated in any existing law. Par. 10264.2 Burns' Anno. Ind. St. Supp. 1929. Or, still following the statute, suppose a statewide agricultural society or organization of merchants or of manufacturers (all of which organizations exist in Indiana as in other states) should complain to the commission of the rural rates, or the power rates, or the commercial rates, as the case might be, charged by appellant in the entire thirteen counties which its property covers. What then would be the rate making area? It could not be less, under appellees' interepretation of the act, than the thirteen counties in question.

A further example will demonstrate the utterly indefensible character of the construction of the statute contended for by appellees. By definition, under the Indiana statutes, electric street and interurban railways are public utilities subject to the jurisdiction of the commission. They operate under indeterminate permits and are committed to commission regulation to the same extent, exactly as are electric utilities. The interpretation adopted by the district court, which appellees are here attempting to defend, would make a city a ratemaking unit in the case of an electric railway as certainly as in the case of an electric utility. For there can be no question that under the statute any city may complain to the commission with respect to the rates charged by an interurban railway which operates within the city limits. In rare cases a street railway is located wholly within the political boundary lines of the city. But in most cases, as an economic necessity, it ex-

tends beyond those boundaries in the suburban area, as everyone knows. And in the case of electric interurban railways, their passage through cities located along their lines is a mere incident in their operations. If appellees are right, then fares fixed by a street or interurban electric railway for service within the city could be tested by relating the net income from such intracity service to the segregated part of the railway property used or useful in rendering such intracity service without regard to the effect of the earnings upon the railway system as a whole. But this is not the law.

St. Louis & San Francisco Ry. v. *Gill,* 156 U. S. 649, 665, 666.

Puget Sound Traction Co. v. *Reynolds,* 244 U. S. 574, 580, 581.

United Railways v. *West,* 280 U. S. 234, 252-253.

An interurban railway serving fifty communities located along its line is so manifestly a single physical and economic unit that no one would seriously question the fact. Yet in the modern state of the art of transmitting and distributing electricity an interconnected electrical system supplying fifty communities located along its line or lines is fully as unified and integrated in its physical and economic character.

The simple fact is that the construction placed on the Indiana statutes by the district court disregards their plain language. Every circumstance useful as an aid in construing that language leads to the conclusion that the legislature meant what it plainly said. The legislature presumably had in mind the strong economic and social reasons which make it desirable from the standpoint of the public to have the agricultural and sparsely settled parts of the state, as well as the municipalities, supplied with electricity

at reasonably cheap rates and, therefore, to have the entire property of the utility and not the property in any congested area, such as a municipality, the unit for ratemaking purposes.

The vital section of the Indiana Public Service Commission Act, Section 9, in the first sentence states:

> "The Commission shall value *all* the property of every public utility actually used and useful for the convenience of the public." (Vol. 3, Burns' Ann. Ind. Stats. 1926 ed. Sec. 12680.)

The district court in construing this section (R. 147) said:

> "This section refers to the property that is used and useful in connection with the furnishing of a utility to any municipality under consideration, in this instance Martinsville."

In other words, the district court simply wrote into the statute language which it does not contain. This action was, we submit, an inexcusable piece of judicial legislation. If such had been the intention of the legislature, it would have been an easy thing so to have drafted the statute as to make it clear that the unit for ratemaking purposes was to be the city and no other unit. But the legislature did not say that. It said that *all* the property of the utility, which property might extend beyond the limits of any single municipality, should be valued, and it provided in Section 11 that, after the valuation was determined, a statement thereof should be filed with "* * * the Clerk of each municipality in which *any part* of the plant or equipment of such utility is located." (italics ours) (Vol. 3, Burns' Anno. Ind. Stats. 1926 ed. Sec. 12682.) We submit that that language is not ambiguous; that it means exactly what it says; and that it is so clear that evidence outside of the statute itself cannot be used to interpret its meaning.

But if arguments as to what the legislature is presumed to have intended are to be used, it will be found that the arguments of the commission and of the district court are based on such a misconception of the historical facts as to be wholly misleading and unpersuasive. From the statements in the opinion of the district court, one would think that the state of the electric industry in 1913 was such that *no* electric company owned any property outside of the limits of a particular municipality. The court said (R. 146 and 147):

> "Prior to the year 1913, each municipality, through its officials, was charged with the duty of providing public utility service for such municipality and the inhabitants thereof, and was, under the law, given ample power to perform such duty. Practically every municipality within the State, the size of Martinsville, had a light and power plant, owned either by such municipality or by a private corporation. * * * At the time of the passage of this Act, the development of electrical power plants was in its infancy, as compared with the present day. The one thing that was uppermost in the minds of the legislators, in enacting this legislation was to bring about reasonable rates and adequate service on the part of the utility on the one hand, and the municipality and its inhabitants on the other."

The vice with this argument is that it is founded on an entirely erroneous assumption as to the state of the electric industry in the year 1913. The statement is not based upon any evidence in the record. The court seems to have drawn the inference that because appellant's system was conceived and assembled in 1923, no interconnected electrical system was in existence ten years before that. Not

only is the assumption unsupported by any proof, but it is diametrically opposed to the historical facts. The truth of the matter is that by the year 1913, the development of the central station plant and high power transmission lines was such that it was obvious to everyone that the unit of the electric operating company of the future was not to be a municipality but a much larger territory. Quotations in the appendix at pp. 54-55 of this reply from McGraw's Electrical Directory show the names of utility companies in Indiana serving more than one community in 1913 and the number of communities served. The state of the development of the electric industry in 1913 is excellently shown by reference to a book issued by the United States Department of Commerce, Bureau of Census, in 1912, entitled "Central Electric Light and Power Stations and Street and Electric Railways, with Summary of the Electrical Industries, 1912," Government Printing Office, Washington, D. C. A few quotations from this book appear in the appendix to this brief at pp. 47-53.

These quotations show conclusively that the statement of the court as to the condition of the electric industry in 1912 is wrong, and that its conclusion as to the intentions and purposes of the Indiana legislature is without foundation in fact. The legislators must be presumed to have known the facts as to the development of the industry and the state of the art, not as the district court wrongly understood them, but as they were. They must have known that the days of separate electric plants for separate municipalities were over or were definitely numbered. They must have known that the operating unit of the future was not to be a municipality but a system embracing probably numerous municipalities. Presumably what was "uppermost in the minds of the legislators, in

enacting this legislation," was not to settle disputes between a municipality on the one hand and an electrical company on the other, but to provide state control of electrical companies which had extended or were about to extend beyond the bounds of municipalities and which, therefore, the existing system of municipal control was utterly inadequate to handle. It was obvious that, if an electric operating system covered numerous municipalities and certain rural districts, an attempt by each separate municipality to fix rates for itself was bound to end in confusion and injustice. The state was, therefore, obliged to step in and naturally provide for a valuation of the operating utility's properties, not merely that property which was located in each political subdivision but of *all* its properties. This the statute specifically does. The fact that the legislature in Sections 11 and 18 expressly referred to utility property only *a part* of which might be located within a particular municipality, conclusively shows that it was cognizant of the development of the art at the time the statue was passed and could no have contemplated a stifling practice of making rates by municipal units.

In enacting the statute establishing a state public service commission, the legislature of Indiana must be presumed also to have had in mind the strong arguments of public policy which would compel a utility, whose properties extended over a considerable territory, to serve the less profitable districts as well as the most profitable. It has been generally considered good public policy to give to the rural and sparsely settled districts of every state postal service comparable to the service rendered in congested communities. It has been considered good public policy to develop the rural and sparsely settled districts by building good roads, even though the traffic on these

roads at the time they were built might not show an adequate return on the cost of their construction considered separately.

For similar reasons, it is good public policy to extend the development of electricity and telephone service to these rural and sparsely settled communities insofar as the same is reasonably possible. One way that this can be done is to permit, or perhaps compel, a utility to extend its lines into districts which are not self-supporting at the time the extension is made but which have a reasonable chance of becoming self-supporting in the future, and, in the interim, to permit the utility to make a reasonable return on all its properties considered as a unit. If a utility is held down to the minimum return permitted by the constitution in the more profitable areas of its territory, it obviously cannot afford or constitutionally be compelled to experiment with the development of any market in territory which is not paying territory and will not become such until developed. The social result of such a policy would inevitably be to make rural life less attractive and to increase the evil tendency to undue concentration of population and industry in the great municipalities. In states where uniform rates for electricity are in existence throughout the entire state, it is possible for industries to be profitably located in sparsely settled communities. This results from the fact that the power rates are the same as they are in the municipalities and the living conditions for the workers are nearly equal in attractiveness. It seems unnecessary further to elaborate the social and economic advantage of such a statewide development as compared with a concentration of population and industry in the cities.

This court itself has pointed out the desirability, in certain cases, of forcing a utility company, if as a whole it

is making an adequate return, to give service in a territory which, considered by itself, might be unprofitable. Thus, in *United Gas Co.* v. *R. R. Commission,* 278 U. S. 300, at 309, the court said:

> "The primary duty of a public utility is to serve on reasonable terms all those who desire the service it renders. This duty does not permit it to pick and choose and to serve only those portions of the territory which it finds most profitable, leaving the remainder to get along without the service which it alone is in a position to give. An important purpose of state supervision is to prevent such discriminations, see *New York & Queens Gas Co.* v. *McCall,* 245 U. S. 345, at p. 351, and if a public service company may not refuse to serve a territory where the return is reasonable, or even in some circumtances where the return is inadequate but that on its total related business is sufficient, *Atlantic Coast Line* v. *N. Car. Corp'n Comm.,* 206 U. S. 1, at p. 25; *Missouri Pac. Ry. Co.* v. *Kansas,* 216 U. S. 262, at p. 277, it goes without saying that it may not use its privileged position, in conjunction with the demand which it has created, as a weapon to control rates by threatening to discontinue that part of its service if it does not receive the rate demanded."

In this country fortunately the doctrine of regarding the municipality as the unit has not generally prevailed, and as a result there has been an extension of electric service throughout the country which would have been impossible in any other system. This is evident from an examination of the decisions of the Public Service Commissions referred to on pages 60 and 61 of the brief for appellant.

Not only has the tendency been to treat the system as a unit for ratemaking purposes but the tendency has been toward more uniformity in rates throughout the entire territory. This tendency has resulted from the initiative of the utilities themselves and also from the pressure put on the utilities by progressive state utility commissions and progressive governors of states. In an address at the Syracuse, New York, State Fair on August 29, 1929 (reported in the "New York Times" of August 30, 1929,) Governor Roosevelt pointed out that it costs the same amount per mile to travel on the main line of the New York Central Railroad where the traffic is heavy as on a small single track road in a sparsely settled section and said:

> "This is on the theory that, even though there may be little or no profit to the railroad in running passenger trains on a branch line, it should be made up for by the profit on the heavily traveled section of the road."

He then advocated applying the same principle to electric utilities.

In certain states, this principle has been applied and uniform rates are found throughout the entire state. Professor Philip Cabot of the Harvard University School of Business Administration, in an address before the American Bar Association in October, 1932, in expounding the advantages of systemwide rates, said:

> "Let me interrupt myself to give an illustration of what I have in mind. In domestic lighting in the electrical field in thickly settled areas near the station, you can provide that service profitably at 2½ or 3 cents a kilowatt hour. But 20 miles from the station or 50 miles from the station it cannot be done at anywhere near that price. If you begin with a low

price such as 2½ or 3 cents, the result is either (*sic*) that no service is supplied outside of a narrow area. That is what happened in England to a large extent. The municipal authorities there began with very low rates and a very short way from the center of the cities you find no electric service, whatever. I spent the summer in England in a house, and in neither that house nor any of the neighboring houses was there any electric service at all. It is unthinkable in this country.

"If you do not refuse to serve, the other method is to use a mileage rate. If a man is ten miles from the station, he will pay a higher price than the man who is three miles from the station. If he is 20 miles from the station, he pays a higher price still.

"Both those methods have been tried and both have failed. Under neither one do you develop the maximum volume of business, and the reason is, I think that you violate the principle of value of service. The value of service is the same to the man 20 miles from the station as to the man 2 miles away, and if you ask him to pay two or three times as much, he is rather likely to say no, even if he can afford it.

"In the United States we have avoided both those errors in general. We maintain uniform prices over very large metropolitan areas. The principle is sound and we have here very much larger developments than could possibly have been obtained by any other system of rate making."

The decision of the district court, in upholding the decision of the commission in the construction of the Indiana statute so as to compel the commission to use a municipal rather than a system-wide rate base, and in holding

that the order of the commission, based on a municipal rate base and in disregard of the property outside of the limits of the municipality, is lawful, is a decision which, we submit, is not only contrary to the constitution and the law but is, in its economic and social results, reactionary and anti-social. It cannot be presumed that the Indiana legislature intended such a result.

It is manifest that appellees have concentrated upon the words "municipal organization" in section 57 of the Indiana statute and ignored all of its other language for no better reason than that it serves their immediate purpose in this lawsuit. But their interpretation of the statute outrages every tenet of construction. If they can make the statute say that a city was intended by the legislature to be the required ratemaking unit, then they must admit that it also, in the same breath, says other things directly contradictory to that statement, *i. e.*, that any political subdivision other than a city is also the required ratemaking unit or that any area represented by any of the other numerous types of complainant is also the required ratemaking unit. But these things cannot all be true. They are mutually destructive. A logical application of appellees' reasoning leaves the whole subject in a hopeless state of confusion and drives one back to the sound conclusion for which the simple and straightforward words of the statute call, namely, that the legislature was merely defining the procedure by which rate inquiries could be initiated and specifying the types of complainant who might properly institute them, with no suspicion that in so doing it was defining ratemaking units or providing for the carving up of widespread utility properties along local political boundary lines.

The point, we feel, deserves the emphasis which we give it, for it was upon this very point that the district court

fell into the error which caused it to forget its constitutional duties in this case. Being unaided by any decision of the Indiana state courts it elected to be influenced by language by the Supreme Court of Wisconsin in the EauClaire case, 178 Wis. 207, 189 N. W. 476, in dealing with a similar statute. But it overlooked the fact that the issue before the Wisconsin court was the very converse of the one with which the district court was dealing, and that any language of the Wisconsin court should be read in the light of the question then before it. What the Wisconsin court decided was that where the total earnings of an interconnected electric system were adequate, a city located near the source of supply—a hydroelectric dam—could demand lower rates than one located further away. The Wisconsin court was apparently influenced considerably by the fact that the nearer city had previously enjoyed cheaper service by means of a local plant—a fact not paralleled here, for Martinsville is substantially benefitted by being a party to the interconnected system. But the Wisconsin court did not have before it and did not decide that the commission by any discrimination between communities could reduce the total earnings of the interconnected system below a compensatory level.

The other cases relied upon by appellees are no more pertinent.

The case of *Hardin-Wyandot Lighting Company* v. *Public Utilities Commission of Ohio,* 118 Oh. St. 592; 162 N. E. 262, is not in point because it assumes the question involved in the case at bar. The Ohio court merely held that property not used and useful in serving the territory should not be valued. Here the question is whether a municipality can be segregated from the rest of an interconnected system where all the property in the system is clearly used and useful in serving the territory as a whole.

The cases of *Smith* v. *Illinois Bell Telephone Co.*, 282 U. S. 133, and *Minnesota Rate Cases*, 230 U. S. 352, do not support appellees' contention. Those cases are cases where it is necessary to separate intrastate and interstate revenues and expenses because it is essential to the appropriate recognition of the competent governmental authority in each field of regulation. The Minnesota rate cases show that all the business in the state was taken into consideration.

If the contention of appellees is correct, then the rule announced in *St. Louis & San Francisco Ry.* v. *Gill*, 156 U. S. 649, at 665-666, and followed in subsequent cases, is wrong and the utility will hereafter be entitled to claim the right to earn a net profit from every mile, section or other part into which its property may be divided. There is no more logical reason why the city is to be taken as the rate area than any other geographical subdivision which may be invoked. The constitutional protection is to the entire property dedicated to public use and has no relation to the geographical areas in which the property may be located.

In *Interstate Commerce Commission* v. *Union Pacific R. R. Co.*, 222 U. S. 541, 549, the commission had fixed rates on lumber. The question concerned the rates on a single article, *i. e.*, lumber, and questioned them on the ground they were unreasonable and unremunerative. The evidence showed the rates as a whole were not confiscatory. The case thus is different from the one at bar where the rates as a whole are confiscatory. The rates as a whole being compensatory the question turned on the reasonableness of the rate on lumber alone, and the case was decided on that issue.

Certain other suggestions of appellees may be mentioned.

Appellees assert that "no evidence was introduced to show that Central Indiana Power Company as the real owner of the whole affiliated system used or operated as a whole was not getting a fair return on the whole" (Bf. pp. 47 and 75).

Central Indiana Power Company is a holding company, owning the stocks and bonds of the affiliated companies. It owns no utility properties and operates none. The contention that the court can look through the corporate form of appellant and say that Central Indiana Power Company as the owner of its stock and bonds is the owner of the property of appellant and of the other affiliated companies is clearly an unsound legal conclusion. The fact of separate corporate existence cannot be disregarded and the fiction of corporate identity substituted. The decision of this court in *Smith* v. *Illinois Bell Telephone Co.*, 282 U. S. 133, 143, 144, furnishes the answer to the suggestion. This court there held that the Illinois Bell Telephone Company was the proper plaintiff notwithstanding the control of its stock by the American Telephone and Telegraph Company. If the contention of appellees were sound it would mean that the American Telephone and Telegraph Company as the holder of the stock of the Illinois Bell Telepone Company and of other large operating telephone companies would have to show it "was not getting a fair return on the whole." It is clear that the interconnections of the various telephone corporations of this country are more far reaching and have achieved a further stage of development than has the system of the affiliated utility corporations, the stocks of which are owned by the Central Indiana Power Company. Appellees, by making this contention, in fact contradict their argument that Martinsville alone is the rate unit.

Appellees claim (Bf. p. 63) that the testimony of appellant's witness Spooner supports their contention that no property is used and useful in serving Martinsville except the Martinsville local property and an apportionable part of the power system. Appellees appear to be resorting to the opinion of a witness as to how this case should be decided. However, an examination of the record shows he made no such statement. He merely stated the obvious physical fact that only the Martinsville local property is utilized in distributing electricity within Martinsville, and that local property outside Martinsville is not used in bringing electricity to Martinsville (R. 205). This does not change the fact that appellant's public utility system, serving 50 towns, cities and communities, is a single operating unit, both physically and economically, and that Martinsville, is an integral part of that public utility system. Even within Martinsville not every wire is used to carry electricity to every customer.

Appellees argue (Bf. p. 37) that the power system property of appellant was not conceived for its purposes only, but that its transmission lines were conceived and created as a comprehensive part of the whole power distribution system of the affiliated companies. We have explained the development of the affiliated system. Economic necessity brought the system together. No one of the affiliated companies had an electrical demand large enough to make a large generating plant commercially expedient. It is conceded by every one of the five engineers who testified for appellant, and the three who testified for appellees, that power can be generated much more cheaply in a large generating station, and distributed by transmission lines to the customers at less cost, than it can be generated and supplied in small local generating plants. All concede that Martinsville is better off by being supplied

from the appellant's system. Obviously, transmission lines must be built that will coincide with the system demand. Each of the affiliated companies built the necessary transmission lines in its respective territory. Appellant invested more in transmission lines but it saved much more in generating equipment and the net result was a saving in capital investment. A cheaper power supply was secured. It is not disputed that appellant and its customers benefit as a result by getting cheaper energy and also by getting a more reliable and dependable supply. Appellees demand that apepllant shall secure all the benefits and pass them to its customers free of the fair reciprocal burden that necessarily goes with the building of the system. The unanimous agreement of the engineers who testified, that the system is a beneficial one supplying power over the transmission lines at less cost than it can be generated in small local generating plants, plus the presumption of fair and honest dealing that must be accorded appellant, establishes the justification for appellant's action in the construction and operation of its system. There is a substantial reciprocal benefit to each of the affiliated companies from the operation and uses of the system by all. The lines are connected so as to form a loop that will insure service to the communities from either direction. If a break in the line stops the normal flow of current, it will flow in from the opposite direction. This benefits all by saving reserve transmission lines which would otherwise become necessary. It affords all a means of emergency and reserve supply in case the normal supply is for any reason interrupted. Of course, reserve and energy supply is never large in volume, but it is vital to the company and customers, and must, at all times be available as the means of affording dependable, reliable and continuous service. The plan does this and

thereby affords each a substantial reciprocal use in the lines of the other. Considering the actualities, it is seen that appellant's property was built and designed for the ultimate benefit of appellant's customers, and that that benefit has been achieved.

Appellees seem to contend (Bf. p. 66) that because appellant has voluntarily filed rates which give it less than a fair return on its system property, it cannot complain. Whether appellees intend to offer this as an excuse for the consfication practiced by the commission we do not understand. If so intended it is a sufficient answer to point out that while a utility may as a matter of policy forego a fair return, a commission cannot constrain it to do so.

> *Great Falls Gas Co.* v. *Public Service Com.*, 34 Fed. (2d) 297, 298.

Appellees' entire case, in the last analysis, is grounded upon their argument, based upon their construction of section 57 of the Indiana statute, that the city is the required rate unit. Since the statute has never been construed by the state courts of Indiana on the point contended for, and the question here presented is a constitutional one, the ordinary reluctance of this court to construe a state statute disappears, and it becomes not only the power and right of the court, but also its duty, to determine the true meaning and effect of the language used by the Indiana legislators. Where the jurisdiction of the federal court is properly invoked upon a substantial controversy arising under the constitution of the United States, the jurisdiction of that court, and of the supreme court on appeal, extends to the determination of all questions involved, including questions of state law, irrespec-

tive of the disposition that may be made of the federal question and whether it be found necessary to decide it at all.

Siler v. *Louisville & Nashville R. R. Co.*, 213 U. S. 175, 191.

Greene v. *Louisville and Interurban Railroad Co.*, 244 U. S. 499, 508.

Hopkins v. *Southern California Telephone Co.*, 275 U. S. 393, 399.

Edward Hines, Trustees v. *Martin*, 268 U. S. 458, 463.

Prentis v. *Atlantic Coast Line*, 211 U. S. 210, 226, 227.

The decision in this case will of necessity stand as a landmark in the field of public regulation of the interconnected electric utilities which have done so much in the last few decades to advance and quicken the development of the nation. The attempted economic isolation of local communities which is implicit in appellees' argument is distinctly contrary to that fortunate breaking down of the barriers of time and space which has been such a distinctive development in this country in recent years. If by the nibbling process which they advocate, which is essentially opportunist in character, neighboring communities which should cooperate are to be encouraged instead to seek temporary selfish advantage at each other's expense, then the development of the electrical industry must pause for a generation until our social philosophy and resultant legal concepts again come abreast of our scientific achievement.

II.

If Martinsville Is to Be Segregated.

If Martinsville is to be separated (a) the allocation of power system property to Martinsville use, and (b) the fixing of a "gateway" cost for electric energy supplied Martinsville, must be on an actual use basis and not by averaging.

When appellees argue that the segregation of power system property and the fixing of a "gateway" cost for electrical enery was on an actual use basis they ignore the undisputed facts. To allocate property fairly and fix a "gateway" price it is necessary to recognize the fact that half the deliveries are to affiliated utilities. In order for appellant to be able to secure power at one cent per k. w. h. from the Dresser plant it was necessary for it to join with the other affiliated utilities in building and operating the high tension transmission system whereby all affiliated companies may secure power from the Dresser plant. The master recognized that this plan was absolutely necessary to make the Dresser plant commerically possible (R. 80). The court admitted that the Dresser plant is the means by which electrical energy is supplied at a minimum cost (R. 144). Appellees now desire to appropriate for Martinsville the benefits of this plan, but to disclaim the reciprocal burdens of the plan. To include, as the commission, master and court did, the deliveries to affiliated utilities, equaling approximately half the total deliveries, and average all on a flat kilowatt-hour basis, is clearly not a segregating of the property according to use, but is a sacrifice of substance and fact to form, resulting in gross injustice and confiscation of appellant's property.

Appellees say that energy is sold by Northern Indiana Power Company to the town of Tipton for $.0162 per kilowatt hour (Ex. 124, R. 320). The master first admitted the exhibits in question, but subsequently excluded them (R. 265-6) for the reason that the exhibits were purely hearsay, related to collateral matters and there was no sufficient showing that the property of the companies referred to in the several exhibits as supplying the various cities, were comparable to any substantial extent with the property of appellant; that nothing was shown in relation to operating expenses or management and there was no satisfactory evidence as to the value of the property involved in the several exhibits excluded. Appellees did not file exceptions to the master's report. Similar evidence was excluded in *Smyth* v. *Ames,* 169 U. S. 466, 540, and in *Board of Public Utility Commissioners* v. *Elizabethtown Water Company,* 43 Fed. (2d) 478. The energy is wholesaled to Tipton and not retailed as in the case of Martinsville. The evidence having been excluded there was no examination in reference to whether the rate was a proper rate at Tipton. The value of the property necessary to serve Tipton and the expense of the service is not shown. Whether the service was at a loss or profit is not known. Obviously the cost to Tipton could not control the cost to Martinsville. The assertion that the energy supplied to Tipton was transmitted to Northern Indiana Power Company over appellant's lines is not correct and is not supported by the evidence in the record. Northern Indiana Power Company obtains power from several sources, and in addition has a large generating plant at Kokomo near Tipton.

We regret that two errors appear in the tabulations set up in appellant's brief, and we desire to correct them.

First. The "working cash" item in the Spooner & Merrill appraisal as it appears in the tabulation at page 25 should be $3,358 (R. 275) instead of $5,358. This error does not change the total of $135,402 because the correct figure of $3,358 is reflected in the total.

Second. In the tabulation at pages 92, 93 and 94 the item of "annual depreciation—4% of $287,915.24—$11,516.60," is wrong. This item should be "annual depreciation—4% of $100,283 (R. 300) on Martinsville local property—$4,011.32." This reduces the depreciation $7,505.28 and this reduction should be reflected in the totals following it. After giving effect to this correction a deficit still remains. It is an error because the "gateway" cost of $.022897 per k. w. h. includes 4% depreciation and 8% return on the power system property (R. 300). Therefore the item of "annual depreciation" following in the tabulation should be limited to the Martinsville local property. The court did not include an allowance for depreciation or return in the "gateway" cost of $.0133 per k. w. h. Therefore the "annual depreciation" allowance by the court is to cover both system property allocated to Martinsville and the local Martinsville property. But the "gateway" cost fixed by the commission and the master included depreciation and return on the power system property.

Since the error in the depreciation item in the tabulation at pages 92, 93 and 94 is reflected in the totals following it we are here setting forth corrected tabulations:

The revenue from the rates complained of, and expenses for the calendar year 1929 are shown to be as follows:

Operating Revenue (R. 168)		$84,750.13
Expense:		
Power—2,532,798 k. w. h. (R. 311) at $.022897 per k. w. h., including 4% depreciation and 8% return on power system property (R. 300)	$57,993.47	
Other expenses, including taxes	21,349.05	
Rate case expense (R. 114)	5,180.65	
Annual depreciation—4% of Martinsville depreciable property $100,283 (R. 300)	4,011.32	88,534.49
(*In red)	Deficit	$ 3,784.36*

The revenue from the rates complained of, and expenses for the year ending May 31, 1930, are shown to be as follows:

Operating Revenue (R. 168)		$81,868.72
Expenses:		
Power—2,528,511 k. w. h. (R. 168) at $.022897 per k. w. h., including 4% depreciation and 8% return on power system property (R. 300)	$57,895.31	
Other expenses, including taxes	20,624.18	
Rate case expense (R. 237)	6,235.98	
Annual depreciation—4% of Martinsville local depreciable property $100,283 (R. 300)	4,011.32	88,766.79
(*In red)	Deficit	$ 6,898.07*

The following comparative statements show the differences between appellant's statements and the tests applied by the court for the same periods (R. 168 and 169):

For the calendar year 1929:

Statement by District Court			Statement by Appellant	
$84,750.13		Operating Revenue		$84,750.13
	$33,726.13	Expenses—Power	$57,993.47	
	21,349.05	Other expenses, including taxes	21,349.05	
	400.00	Rate case expense	5,180.65	
62,250.34	6,775.16	Annual depreciation	4,011.32	88,534.49
$22,499.79—Net			Deficit	$ 3,784.36*

(*In red)

For the year ending May 31, 1931:

$81,868.72		Operating Revenue		$81,868.72
	$33,629.20	Expenses—Power	$57,895.31	
	20,624.18	Other expenses, including taxes	20,624.18	
	400.00	Rate case expense	6,235.98	
61,428.54	6,775.16	Annual depreciation	4,011.32	88,766.79
$20,440.18—Net			Deficit	$ 6,898.07*

(*In red)

If the items of 4% depreciation and 8% return included in the "gateway" cost of $.022897 per k. w. h. (R. 300) are eliminated, the "gateway" cost will then be $624,854.64 divided by 41,032,962 k. w. h., or $.015228 per k. w. h. This cost of $.015228 per k. w. h. is comparable to the cost of $.0133 per k. w. h. used by the court and will result in eliminating depreciation and return on the power system from the "gateway" cost. Restating the tabulations on this basis the results are as follows:

For the calendar year 1929:

Statement by District Court			Statement by Appellant	
$84,750.13		Operating Revenue		$84,750.13
	$33,726.13	Expenses—Power	$38,568.55	
	21,349.05	Other expenses and taxes	21,349.05	
	400.00	Rate case expense	5,180.65	
62,250.34	6,775.16	Annual depreciation	11,516.60	76,614.85
$22,499.79—Net			Net—	$8,135.28

The court applied the return $22,499.79 to a rate base for Martinsville of $204,138 which showed a return of 11% plus (R. 168 and 169). The return of $8,135.28 applied to a rate base of $376,578.19 claimed by appellant (p. 91, appellant's brief) shows a return of 2.16%.

For the year ending May 31, 1930.

Statement by District Court			Statement by Appellant	
$81,868.72		Operating Revenue		$81,868.72
	$33,629.20	Expenses—Power	$38,504.17	
	20,624.18	Other expenses and taxes	20,624.18	
	400.00	Rate case expense	6,235.98	
61,428.54	6,775.16	Annual depreciation	11,516.60	76,880.93
$20,440.18—Net			Net—	$ 4,987.79

The court applied the return of $20,440.18 to a rate base for Martinsville of $204,138 which showed a return of 10% plus (R. 168). The return of $4,987.79 applied to a rate base of $376,578.19 claimed by appellant (p. 91, appellant's brief) shows a return of 1.32%.

III.

Value of Property.

The master rejected entirely the appraisal of Stone & Webster (R. 85, 86). There can be no dispute about this. Appellees are merely quarreling over the use of the word "ignored." When the master rejected the appraisal and gave it no weight he certainly ignored it. There is no escaping the fact that the opinion of the witness Abbett was accepted as to the principal items of property (R. 94, 100, 109, 152). The testimony of William V. Burnell and Carl J. Sittinger of the engineering firm of Stone & Webster and the testimony of Charles J. Spooner and Donald M. Cook of the engineering firm of Spooner & Merrill contra-

dicts the appraisal of Abbett. Why it should be held that the opinion of the witness Abbett was right on unit prices, depreciation and intangibles and that of four more experienced men was wrong, cannot be explained. The undisputed evidence as to the securities authorized by the Public Service Commission from June, 1923, to June, 1927, for the acquisition of appellant's property, the cost of that property as recorded on the books and the earnings from the property corroborates the appraisals of Stone & Webster and Spooner & Merrill. A summary shows the following:

Stone & Webster (R. 277)	$5,828,507
Spooner & Merrill (R. 275)	5,556,091
Securities authorized by Public Service Commission (R. 281)	5,088,100
Cost per books of electric utility property, excluding working cash, materials, supplies and going value (R. 280)	4,940,686
Cost per books, including working cash, materials, supplies and going value (R. 288)	5,627,903
Average annual earnings from 1923 to 1927, before deduction for depreciation (R. 287)	364,209
Dividends paid on common stock from 1923 to 1927 average per annum	4.36%

The finding of the master reducing the value to $4,594,887 (R. 131) is clearly erroneous.

Appellees contend that the cost of financing should be eliminated from the appraisal made to reflect reproduction cost. It cannot be denied that the cost of financing is a

normal item in reproduction cost. The authorities cited by appellees show that an allowance for cost of financing is not proper in showing actual cost where no cost of financing was actually incurred. Here the actual cost is shown by the book cost and does not include cost of financing. On the other hand, the appraisals of Stone & Webster and Spooner & Merrill are to show reproduction cost and it is proper to include in them all normal items of reproduction cost, including cost of financing. The fact that in this particular case appellant was able, through the Central Indiana Power Company, to finance the property without paying an actual charge for cost of financing cannot in any way affect the reproduction value of its property. That reproduction value should reflect all items which normally enter into such reproduction value.

Appellees argue that the unit prices used in the Stone & Webster appraisals were made by one of the men in their office who never saw appellant's property and who never came on the grounds (R. 225). But the unit prices used by appellees' witness Abbett are based on catalogs and quotations, and his opinion on labor performance on mathematical calculations, as he had had no construction experience except in school.

IV.

Rate Case Expense.

Appellees make no attempt to demonstrate how the appellant will be able to pay the expenses of this rate case out of an allowance of $4,000 amortized over a ten-year period at the rate of $400 per year. It is not questioned that the expense of the rate litigation exceeds $60,000. Appellees choose to ignore the fact that two single items of cost (*i. e.* $1,000 for the commission's appraisal, and

$4,500 for the master's fees) aggregating $5,500 alone exceed the allowance of $4,000 for rate case expense. How will the appellant pay for its attorneys' fees, court costs and appraisals? Is it to be penalized in the sum of $60,000 for daring to assert its constitutional rights?

The appellees are seriously in error in asserting that the appraisal expenses incurred in the previous merger hearing before the commission are being charged against Martinsville in this rate case. It appears (R. 237) that all the expenses in connection with the merger were paid for and carried on the books of Central Indiana Power Company and no part of them was charged to the appellant. Instead of charging any of the appraisal in the previous merger case to the rate case, the costs of the rate case were lessened by using the inventory that had been made for the merger case. The fact that the same inventory was used in the rate case as was used in the previous hearing in reference to the merger, is what appellees refer to (R. 203). By using the same inventory, bringing it down to date and reappraising the property as of the later date, considerable expense was saved in the rate case. The commission engineers proceeded in the same manner, in this respect, as did appellant's engineers in making the appraisal.

Although the presumption of honest intent and right conduct support the rate case expense items (*Interstate Commerce Commission* v. *Chicago G. W. Ry.*, 209 U. S. 108, 119), in this case the record contains proof of the expenditures in itemized form (R. 237, 313, 314 and 317).

V.

Rate of Return.

The rate of return is the relation between the net revenue and the fair value of the property. Where the valuation placed on the property is inadequate and the cost of the service had been underestimated, the rate of return should be more liberal.

VanDyke v. *Geary*, 244 U. S. 39, at 48.

It is clear that the testimony of appellees' witnesses supporting a 7 per cent return did not include an allowance for accumulating a surplus. The testimony of appellant's witnesses that 8 per cent return was required to take care of interest on bonds, dividends on stock and the accumulation of a surplus, is undisputed. Appellees now argue that 7 per cent is sufficient for the reason that the surplus of the company on January 1, 1929, was $1,074,739.71 and on December 31, 1929, was $1,257,884.64, an increase of $183,144.93 (R. 313). But appellees overlook the fact that no dividends were paid on the common stock of the appellant during the year 1929 and that the net earnings for the year 1929 as computed by the master (R. 131) were $186,044, which is a return of only 4.15 per cent on the value of the property as fixed by the master (R. 131). There is nothing to show that this surplus shown on the books is an earned surplus. It does appear (R. 280) that no dividends were paid on the common stock during the years 1925, 1926, 1928, 1929 and 1930. The earnings before making allowance for depreciation for each of the years from 1923 to 1930 are shown in Exhibit 20 (R. 287). The annual average earnings thus shown are $364,209.75 (R. 287). It further appears that the highest earnings were in the year 1929 when the total before al-

lowance for depreciation was $450,453.17. If from this is deducted the allowance of the master in chancery for depreciation in 1929 of $202,905 (R. 131) the amount of net earnings would be $247,548, or a return of 5.3 per cent on the value found by the master. It is, therefore, clear that the surplus has been built up out of capital plus earnings which should have gone to dividends.

VI.

What Will the Rates Yield?

The tabulations at pages 37-40 of this reply brief show what the rates will yield. These tabulations, together with the argument in appellant's opening brief we deem sufficient to answer appellees' contentions.

VII.

The Rates Are Confiscatory.

The rates on the entire property are shown to yield less than 5 per cent. If an allocation of property is to be made to Martinsville and the allocation charges to Martinsville its fair portion of the power system property and charges a fair "gateway" price for energy, the rates will yield considerably less than 5 per cent as applied to the Martinsville rate base. The rates are clearly confiscatory.

The judgment of the district court should be reversed.

Respectfully submitted,

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APPENDIX.

The Public Service Commission Act of Indiana, commonly known and referred to as the Shively-Spencer Utility Commission Act, became a law May 1, 1913.

The state of the development of the electric industry in 1913 is shown in a book issued by the United States Department of Commerce, Bureau of Census in 1912, entitled "Central Electric Light and Power Stations and Street and Electric Railways, with Summary of the Electrical Industries, 1912," Government Printing Office, Washington, D. C. The following quotations illustrate the point:

> "Three remarkable developments are associated with the period 1907-12, as contrasted with those of antecedent date, although the results are probably only a continued exemplification of the trend of the art and the irresistible push of the forces that have made it what it is as a centralized source of supply.
>
> "*Consolidation of central stations*—One of these conditions of development has been the marked tendency toward central station consolidation. The process was never more active than during the period 1907-12. * * * Some of these city systems have expanded so as to embrace large contiguous areas far beyond the original city limits. In the case of the Boston Edison Co., which supplied electricity originally to only one-eighth of a square mile, the area embraced by the circuits of the same company is now 700 square miles. The same principle has been given another application in the bringing together under one manage-

ment of a large number of extraurban central station properties whose areas of service march together.

"The Public Service Co. of New Jersey furnished electricity, gas or electric street railway service, in 1912, to 202 municipalities in the State with a total population of 2,028,947, of which 173 communities with a population of 1,947,199 were supplied with electricity for light, heat, power, etc. It is unquestionably true that in all these places the quality, price and continuity of the service were superior to what could be obtained through a number of small and often struggling local enterprises.

"Equally notable in respect to extent and comprehension of system is the Pacific Gas & Electric Co. of California, which in 1912 was the owner or operator of plants and properties in 30 counties in central California, furnishing electric light and power to 187 communities, besides supplying gas, water, and street railway service in many of these or other places. The area covered was approximately 37,700 square miles, with a population in 1910 of 1,325,000, or about 55 per cent of that of the entire state.

* * *

"The State of Illinois affords another example of what has been done in this respect. The Central Illinois Public Service Co. at the end of 1912 was serving 87 communities which were originally supplied by no fewer than 49 separate generating plants under nearly as many distinct managements. This number had rapidly been reduced by consolidation to eight, which in turn were to be reduced to four, capable of generating all the needed energy. The advantages of such interconnected operation are best illustrated by the example of the Lake County District, Illinois, where this

unified service effected a decrease in production costs from 7.08 cents per kilowatt hour to 2.87 cents per kilowatt hour, a saving of 4.21 cents per unit.

* * *

"*Holding companies*—* * * It is because of results shown in unification of the one kind or other that in such states as New York, where there are some 321 central station plants, it has been contended that the efficiency would be much higher and the cost of service to the public much lower if there were only 40 such plants or even only 10. The distribution of electrical energy from this minimized number is easy of practice under modern methods of power transmission, and not at all necessarily dependent upon hydroelectrical development." (pp. 111, 112, 113)

"*Water Power*—* * * If one feature more than any other could be said to arrest the gaze of the observer in the central station field today, it would be that of the consolidation into one system of numerous small plants in a given territory, requiring the application to ordinary central station operation of the principles and practices that hitherto have applied to pure power-transmission systems. It was the habit, only a few years ago, to think of central stations and of power-transmission systems as things apart. Today, so swift is the march of events and improvements in the field, the two arts are found overlapping, blended, merged and the whole revolution is predicated upon the conservation and utilization of hitherto wasted resources of power, upon the greater economy possible in dealing with existing equipment, and upon cheaper, better service to the public." (P. 122)

The book continues to cite various instances of huge central station plants and long distance transmission. In speaking of the Mississippi River Electrical Development at Keokuk, Iowa, it is said:

"Several transmission lines have been erected, one 110,000-volt line covering the territory along the river as far south as St. Louis, 144 miles from Keokuk; one 66,000-volt line from Meppen to Alton; two 33,000-volt lines, one to Hannibal and one to Quincy; and one 11,000-volt line covering the territory up the river to Burlington. The bulk of the present energy is disposed of in St. Louis, where 60,000 horsepower is contracted for on a 99-year lease." (p. 123)

* * *

"In New England the conspicuous example is the Connecticut River Transmission Co., which, beginning a few years ago with a plant on the river at Vernon, Vt., of 20,000 horsepower, has grown into a large enterprise, reaching through its circuits such cities as Fitchburg, Clinton and Worcester, Mass., and Providence, R. I., with energy developed at a series of plants all capable of feeding into the common transmission network, in which the line pressure runs up to 120,000 volts.

"The Southern Power Co. has long been a leader in electrical power development and transmission, and its work has been instrumental not only in stimulating a great variety of industries in North and South Carolina, but in setting an example to other sections of the country. This Company now has operating voltages of 100,000 and transmits energy to a distance of 210 miles, a range exceeded slightly at probably only one or two other points within the United States and nowhere else in the world." (p. 128)

Speaking of the Ocoee River Plant of the Eastern Tennessee Power Company, it is stated:

> "Energy is transmitted at 66,000 volts over two 3-phase circuits to Cleveland, Tenn., a distance of 13 miles from the plant; and from the switching station in Cleveland, where the lines separate, the energy is carried over single-circuit wood-pole lines 26 miles west to Chattanooga, Tenn., 85 miles northeast to Knoxville, Tenn. and 75 miles south to Rome, Ga." (p. 129)

Even more spectacular developments were made on the Pacific Coast which the book outlines in detail. Opposite page 132 of the book appears a large table giving the long distance transmission lines of the country.

> "*Tower and line construction and installation*—A typical steel-tower installation at high voltage was that put in operation in 1911 for 135,000-volt transmission from AuSable to Flint, Mich., 125 miles away, and also to Battle Creek, 65 miles farther, tying in at various other points to the 44,000-volt network spread out over southern and central Michigan." (p. 134)
>
> * * *
>
> "*Outdoor substations*—The development of outdoor substations has been one of the marked features of the period, associated with long-distance transmission work. The problem of furnishing electricity to isolated communities and consumers has received much attention and is now generally recognized as a serious and important undertaking. * * * The situation, therefore, is improved, as the consolidation and unification of central station systems have resulted in a large mileage of transmission lines passing through the districts

ready and waiting for electrical service. The problem has resolved itself into the building of lines from a large capacity centralized plant to definite points where loads of suitable characteristics to justify the expense can be secured. From these high-tension feeders, branches extend along the way to farms, mills, stone quarries, grain elevators, irrigation projects, railways, pumping installations, dairy farms, canning factories, brick or tile plants, excavating shovels, etc.

"The small generating station supplying a town or village is necessarily at a distinct disadvantage in the generation and distribution of electricity as compared with the larger stations, as the economy is low. This condition is due to the small quantity of power generated, the poor load factor, and the fact that the size of the enterprise does not justify the employment of highclass engineers or operators. The small generating station is therefore being quite generally superseded by a substation, supplied from a high-tension transmission line serving a number of communities. With one or more small towns as a nucleus, the transmission line is built—the first step toward supplying an entire district or even a county from a centralized plant. The supply of power along the main transmission lines has thus become a comparatively simple matter, aided largely by the outdoor substation reducing the investment required and therewith the cost of the current furnished." (p. 135)

* * *

"Electricity in Agriculture.

"*Power, lighting and heating*—The use of electricity on the farm has been pursued and developed with extraordinary rapidity in recent years. The chief reasons are the extension of power-transmission circuits

from central stations in cities, and the establishment and distribution networks in connection with hydro-electric enterprises looking for patronage of every description.

* * *

"Concrete examples of this significant development exemplify what is being done all over the country. At the meeting of the Illinois State Electrical Association in 1911, this subject was brought up, and some most interesting statistics were presented. Mr. E. L. Brown of Elmwood, Ill., described his local system comprising 30 miles of transmission lines connecting 8 small towns and supplying about 50 farms.

* * *

"At Liberty, Ind., the Liberty Light & Power Co. in 1912 furnished electric lighting service from its 32 miles of 13,200-volts and 6,600-volts transmission lines to a number of farmers in the vicinity." (p. 155)

Electrical Utilities in Indiana in 1913 Serving More Than One Community.

SOURCE: The McGraw Electrical Directory, Lighting & Power Edition List of Central Stations in United States, Canada and Mexico, April 1913.

Company	Number of Communities Served At Retail	At Wholesale
Crown Point Electric Co. (T)	2	..
Fort Wayne & Northern Indiana Traction Company (T)	3	7
Indiana & Michigan El. Co. (I) (T)	2	1
Indiana Railways & Lt. Co., (T)	8	1
La Porte El. Co. (T)	2	..
Liberty Lt. & Pr. Co. (I)	3	..
Muncie El. Lt. Co. (T)	6	1
Noblesville Heat, Light & Power Co. (T)	4	1
Northern Indiana Gas & El. Co. (T)	8	..
Northern Indiana Utilities Co. (T)	11	..
Spencer Lt., Pr., Ht. & Water Co. (T)	2	..
Sullivan County El. Co. (T)	4	..
Terre Haute, Indianapolis & Eastern Traction Co. (I) (T)	6	2
United G. & E. Co. (T)	6	..

(I) Also served one or more communities outside of Indiana.

(T) Had transmission lines connecting central stations with distribution systems in two or more communities served.

Company	Number of Communities Served At Retail	At Wholesale
Ashley Electric Light Co.	2	..
Batesville Elec. Lt. & Pr. Co.	1	1
Citizens Heat, Light & Pr. Co.	5	..
Danville Lt., Ht. & Pr. Co.	3	..
Evansville G. & El. Lt. Co.	2	..
Gragg Brothers El. Lt. Plant	2	..
Indiana El. Transmission Co.	3	..
Indiana Public Service Co.	2	..
Indiana Union Traction Co.	..	3
Indiana Utilities Co.	4	..
Indianapolis Lt. & Ht. Co.	3	..
Kehoe Lt. & Pr. Co. (P)	6	..
Madison Lt. & Ry. Co.	3	..
Marion, Bluffton & Eastern Trac. Co.	3	1
Merchants Heat & Light Co.	4	..
Remington El. Co.	2	..
Southern Indiana Pr. Co.	..	2
Syracuse Pr. & Lt. Co.	2	..
Winona El. Lt. & Water Co.	2	..
Winona Interurban Ry. Co.	..	2

(P) Purchased its power at wholesale from Ft. Wayne & Northern Ind. Trac. Co.

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CHARLES ELMORE

IN THE

Supreme Court of the United States

October Term, 1932.

No. 128.

WABASH VALLEY ELECTRIC COMPANY - Appellant,

v.

RALPH M. YOUNG, JOHN W. McCARDLE, HOWELL ELLIS, JERE WEST, HARRY K. CUTHBERTSON, AS MEMBERS OF THE PUBLIC SERVICE COMMISSION OF INDIANA; JAMES M. OGDEN, AS ATTORNEY GENERAL OF INDIANA; HARRY G. LESLIE, AS GOVERNOR OF INDIANA, AND CITY OF MARTINSVILLE, - - - - - - - - - Appellees.

APPELLEES' BRIEF.

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Wm. B. Burford Printing Co., Indianapolis

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RALPH M. YOUNG, JOHN W. McCARDLE, HOWELL ELLIS, JERE WEST, HARRY K. CUTHBERTSON, AS MEMBERS OF THE PUBLIC SERVICE COMMISSION OF INDIANA; JAMES M. OGDEN, AS ATTORNEY GENERAL OF INDIANA; HARRY G. LESLIE, AS GOVERNOR OF INDIANA, AND CITY OF MARTINSVILLE, - - - - - - - - - Appellees.

BRIEF FOR ALL APPELLEES.

I.

OPINION OF COURT BELOW.

There is an unreported opinion in this case by the court below, but which appears in the record (R. 142).

II.

JURISDICTION TO REVIEW DECREE.

Appellees believe a valid basis on which this court has jurisdiction to review on appeal the decree below appears in the statement filed by appellant under paragraph 1 of Rule 12.

III.

STATEMENT OF THE CASE.

This is an appeal from a final decree of the District Court of the United States for the Southern District of Indiana, composed of three judges under Section 266 of the Judicial Code, dismissing for want of equity appellant's bill of complaint in which it was sought to have enjoined an order of the Public Service Commission of Indiana which prescribed a reduced schedule of rates for electric service rendered by appellant to consumers in the city of Martinsville, Indiana, upon the ground that the order confiscated appellant's property without due process in violation of the Fourteenth Amendment.

Appellant's brief fails to state much that is material to the consideration of the questions presented, and some of the statements made are erroneous. Supplemental and corrected statements will follow:

Problem Involved.

There was presented to the Commission the new problem of how, upon application from a single municipality, to determine reasonable electric rates applicable only in that municipality when it and many score other and widely

scattered municipalities and communities are served by a far-flung empire of interconnected electric properties, which are in reality singly owned and actually singly managed and operated and where the current used is manufactured at distant, large and modern generating plants and is transmitted over a vast, interconnected system of transmission lines onto local distribution systems for distribution to local consumers. The development in the art, from generation of current in small local generating plants for local distribution to the new method of generating current in distant, large, modern generating plants and transmitting it to communities for local distribution, has created this new problem in electric rate making.

Appellant's property not single physical and economic system.

At the outset, appellees correct the error of fact appearing at page 5 of appellant's brief under "Property involved," where it is said that "Appellant's electrical property is a single physical and economic system." It is far from that. The special findings of fact by the court, the Master's report, and the uncontradicted evidence all show that appellant is a mere corporate fiction in the ownership of the property involved, and that the property to which appellant holds the title consists, (a) of numerous local distribution systems in about fifty distinct and widely scattered communities, one of which is Martinsville, and in rural territory in thirteen separate counties, together with, (b) power system property consisting mainly of a net-work of transmission lines,

transformers and substations forming but an integrated parcel of a far vaster net-work of similar power system property which likewise serves numerous widely scattered municipalities and communities in Indiana; that the whole affiliated system is in reality singly owned and actually singly managed and operated, and the whole of which in turn is further interconnected with other vast net-works of power system properties owned and controlled by the same Insull interests. The foregoing facts will appear in more detail with their record references in the exposition of the facts found by the court and the Master and of the evidence, all as hereinafter set out.

Case concerns only rates fixed for service in Martinsville.

The proceeding before the Public Service Commission of Indiana in which the order complained of resulted invoked the jurisdiction of the Commission only in respect of the electric rates to be charged in Martinsville. The original petition was by seventeen of appellant's customers residing in that city, and the petition asked only for a reduction in electric and gas rates in Martinsville (R. 17). Appellant filed a reduced schedule of gas rates, which the Commission approved, and by stipulation of the parties the gas rates were eliminated from the inquiry (R. 27).

On motion by respondent (appellant) that the petitioners be required to state what rates, tolls, charges, schedules, joint rate or rates, in which petitioners "are directly interested" are in any respect unreasonable or unjustly discriminatory (R. 18), the petitioners, with the City of Martinsville joining, filed an amended petition with the Commission. This amended petition sought only

an investigation of electric rates applicable in Martinsville upon the allegation that the rates which appellant was charging its consumers in that city are unreasonable and excessive in that the rates produce a gross income or net revenue which provides more than an adequate return on "the fair value of the property of respondent devoted to the use of the public in the City of Martinsville" (R. 19). The inquiry before the Commission proceeded on the amended petition. No effort was made by either side to bring rates applicable elsewhere in review for possible adjustment. The inquiry and the resulting schedule of rates were limited to rates chargeable in Martinsville.

How the new rates were determined by the Commission.

The Commission treated the local distribution property located at Martinsville as a unit of property that is devoted exclusively to the use of the public within the unit of territory embraced by the territorial boundaries of the city, and fixed a fair value for that unit of property. The evidence of value "fell into form" (R. 28) as of about November 30, 1927, and the Commission found that the fair value of this local unit of property on that date was $87,000 (R. 45). Next, the Commission made a determination of what would be a fair "gateway" charge at Martinsville for the energy, there furnished by appellant for distribution in the city, and found that $.0172 per K. W. H., covering "production cost, depreciation and return" on the power system property would be a fair "gateway" charge (R. 43-47). The Commission used 7% on the fair value of appellant's property for rate of return (R. 46), and 4% for annual depreciation (R. 52). The "gateway" energy charge of $.0172 per K. W. H.

for the energy used for service in Martinsville then became an item of local operating expense. The Commission then finds that the rates fixed by it will be adequate to meet the requirements of the Company for rendering service to Martinsville and to yield a 7% return on the fair value of the Company's property (R. 46).

The Commission's order does not find a fair value for appellant's power system property. How it arrived at the "gateway" charge of $.0172 as sufficient to include annual depreciation and fair return on power system property is not entirely clear. The order shows how as much as $.0139 of the $.0172 charge was reached (R. 43-45). The difference of $.0033 per K. W. H. was added by the Commission to cover depreciation and return on power system property.

Rates found sufficient.

The court below, and the Master, found that the rates fixed by the Commission are sufficient to yield a fair return on the fair value of appellant's property to the extent that it is devoted to the use of the public in Martinsville. If the Commission was mistaken on the items of working capital and annual depreciation, as appellant's brief contends, no such mistake was made by the court below or by the Master in their tests of these rates.

Due to the considerable difference in the effective date of the order and the hearing date of the case, the court and the Master found property values at February 1, 1929, and at May 1, 1930, and found the other factors necessary to proper tests of the adequacy of these rates applied to the calendar year of 1929, and to the twelve month period ending on May 31, 1930.

The method of test used by the court was to compute the Martinsville revenue requirements for a 7% yield on a rate base constituted by the fair value of the local property at Martinsville plus a fair allocable portion of the fair value of appellant's power system property, and then test the operating revenues which the new rates would produce, if in force, by those requirements.

The result of this test applied to the twelve month period ending May 31, 1930, is that the new rates would have yielded a 10% return on the May 1, 1930, rate base; and applied to the calendar year of 1929, these rates would have yielded a 11% return on the May 1, 1930, rate base, and an even greater return on the February 1, 1929, rate base (R. 168, 169, Finding 15).

This same test for those two periods showing the same results, but with more detail, appear in Findings XL and XLI of the Master's report (R. 123-124).

The Master also tested out these rates by the method which the Commission used for determining the rates. He found that a "gateway" charge of $.018 per K. W. H. would be fair (R. 128). In his report, the Master then tested out the adequacy of the new rates by computing the power cost at Martinsville under said "gateway" charge of $.018 per K. W. H. The result of this test applied to the calendar year 1929 shows that the new rates would have yielded more than 7% on the May 1, 1930, fair value found by the Master, and later by the court, for the local property at Martinsville; and applied to the twelve month period ending May 31, 1930, this same test shows a return of more than 7% for that period (R. 128-130).

The Court's special findings of fact.

The court's special findings of fact (R. 156-169) state the facts material to a proper consideration of the questions presented about as concisely as they could here be epitomized, and we therefore set them out, beginning with the second finding, as follows:

2. The City of Martinsville is located in the County of Morgan in said State, and has approximately five thousand inhabitants. There are few industries in said city that consume large amounts of electricity. A great portion of the electricity there used is for domestic purposes. For a number of years electricity was supplied in said city by a local generating and distributing plant, which was later purchased by plaintiff and is now owned by it.

3. The plaintiff is one of seven affiliated corporations giving electric service to the public in Indiana, and whose combined outstanding capital stocks and securities are owned by a corporation known as Central Indiana Power Company. The other six of said affiliated public utility corporations are Indiana Electric Corporation, Attica Electric Company, Northern Indiana Power Company, Colfax Electric Company, Moran Electric Light and Power Company, and Mulberry Light and Power Company.

The same persons who are officers and directors of plaintiff corporation also occupy the corresponding positions in the other six of the affiliated corporations. The operation of this affiliated group is in charge of a committee consisting of representatives of each of the corporations.

4. At some time prior to 1924, and in keeping with the

progress of the times in the electric industry, the financial interests in control of said affiliated group conceived the plan of constructing a large modern generating plant at Dresser, Indiana, for the manufacture of current at a minimum cost and of distributing the current so manufactured throughout large areas of territory in said State. The said group of corporate structures was formed to facilitate said plan.

The financing of such generating plant required the assemblage of a group of electric properties throughout a large part of said State, in order that there might be guaranteed the disposal of a sufficient amount of electricity each year to justify the construction of a generating plant of that type.

In pursuance to this plan a large generating plant, known as the "Dresser Plant" was constructed on the Wabash River, near the City of Terre Haute in Vigo County of said State by Indiana Electric Corporation, one of said affiliated companies. This plant has a generating capacity of 300,000,000 K. W. H. per year, and has been in operation since 1924. Existing electric utility properties were severally acquired by the affiliated corporations in forty counties in said State. Transmission lines and other power system equipment were constructed, interconnecting the acquired electric properties with each other and with the Dresser Plant in order to assure economical operating. A pool of electricity was thus provided and made available for the needs of each of the affiliated corporations. Power loops were constructed throughout the affiliated system of properties so that current could be fed in either direction in event of disablement of a section of transmission line.

The combined needs of the affiliated companies for current have increased so that for the twelve month period ending May 31, 1930, the combined total of current used was between 475,000,000 and 500,000,000 K. W. H. To meet this increased demand the affiliated system has been interconnected with several other large generating plants located in Indiana, some of which are controlled by the same financial interests that control said affiliated group. Indiana Electric Corporation has also constructed a 132 K. V. line across said State to the "Columbia Plant" of Columbia Power Company in Ohio near Cincinnati, over which line current manufactured at the Columbia plant is made available to said affiliated system.

This affiliated system of properties was planned, constructed and interconnected and is being operated by said common management as one large system, although each of said affiliated companies owns distinct property, keeps separate accounts and is operated as a distinct public utility.

5. For the furtherance of said plan, plaintiff, Wabash Valley Electric Company, purchased the local electric plant at Martinsville, also the local electric plants at Sullivan and Clinton and at many other widely scattered cities and towns located in central and western Indiana in the counties of Morgan, Putnam, Owen, Sullivan, Greene, Clay, Vigo, Parke, Vermillion, Fountain, Montgomery, Warren and Tippecanoe.

These local plants were interconnected by high tension transmission lines which in turn were interconnected with similar lines of other affiliated companies in the affiliated system. Substations and transformers were constructed

for the purpose of feeding current from plaintiff's power system onto its local distribution properties in the various cities, towns and communities where it furnishes electric service.

After plaintiff acquired such local plants it ceased to operate such local generating plants except occasionally in event of system peak demand. It now owns three small local generating plants located at Martinsville, Sullivan and Clinton. The electricity generated by these local plants is not fed directly onto the local distribution systems in said cities, but it flows into the affiliated system power pool.

The greater part of the Indiana coal fields lie within the counties in which plaintiff furnishes electric service. At the time when plaintiff began its operations in these counties the coal mines were being operated extensively, requiring a great amount of current for such operation. Since then many coal mines have ceased or curtailed operation, and the use of electricity in this industry has materially decreased. At the time plaintiff began its operations in these counties practically all of the municipalities therein were being supplied with electricity by local plants, there being no interconnecting transmission lines, and such plants were owned either by the municipalities themselves or by private corporations. This practice has gradually been abandoned, and most of these municipalities are now being supplied electricity by plaintiff. Plaintiff furnishes electric service to approximately 18,000 individual customers in approximately fifty cities, towns and communities and in rural territory, including the City of Martinsville.

Plaintiff is the only utility furnishing electric service to the inhabitants at Martinsville, and it operates there under an indeterminate permit from the State of Indiana and under the terms and provisions of the Shively-Spencer Utility Commission Act of said State. The electricity that is distributed in Martinsville is fed onto plaintiff's local distribution system from its said power system property. The current so used comes principally from said Dresser plant.

Plaintiff also owns and operates a gas plant at Martinsville, but no question of gas rates is here involved.

6. On the 16th day of March, 1927, and while plaintiff was furnishing electric service at Martinsville in the manner described, seventeen citizens of Martinsville, who were electric patrons of plaintiff, filed with defendant Commission a petition seeking a reduction in electric rates at Martinsville. An amended petition was thereafter filed in which the City of Martinsville joined as a petitioner. At said time, and at all times prior thereto while plaintiff was furnishing electric service in Martinsville, the plaintiff had on file with said Commission a schedule of rates for electric service at said city approved by said Commission, and which schedule was applicable only at Martinsville.

At all times herein mentioned there was, and now is, in force section fifty-seven of said Act, and which is as follows:

> Upon a complaint made against any public utility by any mercantile, agricultural or manufacturing society or by any body politic or municipal organization or by ten persons, firms, corpora-

tions or associations, or ten complainants of all or any of the aforementioned classes, or by any public utility, that any of the rates, tolls, charges or schedules or any joint rate or rates in which such petitioner is directly interested are in any respect unreasonable or unjustly discriminatory, or that any regulation, measurement, practice or act whatsoever affecting or relating to the service of any public utility, or any service in connection therewith, is in any respect unreasonable, unsafe, insufficient or unjustly discriminatory, or that any service is inadequate or can not be obtained, the commission shall proceed, with or without notice, to make such investigation as it may deem necessary or convenient. But no order affecting said rates, tolls, charges, schedules, regulations, measurements, practice or act, complained of, shall be entered by the commission without a formal public hearing.

Hearings were had on said amended petition at various times by said Commission, and a final order was entered on the 26th day of January, 1929, effective as of February 1st following, fixing the rates and charges for electric service to be collected by plaintiff from its customers in Martinsville, and which are here complained of.

7. Pending said proceeding before the Commission, plaintiff offered to file and put in effect at Martinsville a trial schedule of optional electric rates. That schedule was approved by the Commission for that purpose on July 9, 1927, and said schedule has been in force at Martinsville since then. Plaintiff's operating revenues from Martins-

ville electric business have not been reduced under said trial schedule. Its operating revenues from electric rates at Martinsville for the last full calendar year (1926) preceding operation under said trial schedule were $94,238.23. For the first full calendar year (1928) under the trial schedule the corresponding operating revenues were $94,990.13; and for 1929 they were $99,550.91.

Said trial schedule of rates is, on the whole, higher than the schedule of rates complained of. If the rates complained of had been in effect during the entire year of 1929 they would, by their application to consumer data, have yielded an operating revenue of $84,750.13 for that year. Likewise, they would have yielded an operating revenue of $81,868.72 for the twelve month period ending May 31, 1930.

8. The property of plaintiff that is used and useful for furnishing electric service at Martinsville consists of its local distribution system located in Martinsville, together with an apportionable part of its said interconnected power system property located outside of the corporate limits of Martinsville. Said power system property is used and useful for furnishing services elsewhere in common with the service furnished by means of it at Martinsville.

Plaintiff's local distribution properties located in cities, towns and communities other than Martinsville are not used or useful for furnishing service in Martinsville.

9. Plaintiff's local electric property in Martinsville had undergone such rehabilitation by the time when preparation was being made for the trial of this suit that the inventory used in appraisals introduced before the Commis-

sion was no longer reliable. By joint effort of the engineers representing the adverse parties a new inventory of said local property was made as of May 1, 1930. New appraisals as of that date were made on the basis of the new inventory and introduced in evidence. They were the only appraisals of said local property that were introduced in evidence.

The cost to reproduce new said local electric property in Martinsville, and such cost less accrued depreciation, as of May 1, 1930, is as follows:

	Cost of Reproduction	Cost of Reproduction Depreciated
Poles, towers and fixtures	$20,670	$16,532
Overhead conductors	12,928	11,636
Services	4,963	3,970
Line transformers	13,920	11,832
Transformer installation	1,879	1,597
Consumers' meters	14,977	12,713
Meter installation	767	652
Office equipment	2,699	2,159
Shop equipment	515	412
Transportation equipment	1,516	970
Laboratory equipment	564	479
Total land, plant and equipment.	$75,398	$62,952
To which should be added the following:		
General contingencies and general overhead	10,964	10,701
Structures and equipment at generat-		

ing plant at Martinsville devoted only to local use in Martinsville...	12,475	10,936
Working cash		3,358
Materials and supplies.....		6,500
Going concern value.....		8,500
Total		$102,947

Said local property was substantially in the same condition and of the same fair value on February 1, 1929, as on May 1, 1930. The fair value of plaintiff's used and useful local electric property in Martinsville was $102,947 on both of said dates, and the fair value of the physical elements of said local property on those respective dates was $84,589.

10. The cost to reproduce new plaintiff's said power system property, and such cost less accrued depreciation, as of May 1, 1930, is as follows:

	Cost of Reproduction Not depreciated	Cost of Reproduction Depreciated
Generating plants	$ 516,600	$ 309,388
High voltage stations	482,467	433,609
High voltage transmissions....	986,309	892,877
Carrier current telephone	37,253	31,984
Low voltage substations	14,289	11,423
Low voltage transmission	101,083	66,249
Total land, labor and equipment	$2,138,001	$1,765,530

To which should be added:

Undistributed construction costs, 15%	320,700	264,800
	$2,458,701	$2,030,330
Capital additions, September 1, 1927, to May 1, 1930.....	539,065	539,065
To which should be added:		
Working cash		80,000
Fuel stock		5,000
Material and supplies		162,000
Going concern value		250,000
	$2,997,766	$3,066,395

There were no appraisals of the power system property as of February 1, 1929, placed in evidence. The net additions to said power system property between February 1, 1929, and May 1, 1930, aggregated $444,565.

The fair value of plaintiff's power system property on May 1, 1930, was $3,066,395, and the fair value of the physical elements thereof on that date was $2,569,395. As of February 1, 1929, the fair value of said power system property was $2,621,830, and the fair value of the physical elements thereof on that date was $2,124,830.

11. No cost of financing the reproduction of any of said property would be incurred. Central Indiana Power Company has in the past, and would have on the reproduction dates in question, taken all of the securities issued by plaintiff and furnished it with the necessary capital without any financing cost to plaintiff.

There is no upward trend in prices affecting the value of said properties. There has been a substantial down-

ward trend in copper prices since May 1, 1930, which would tend to reduce the values found herein.

12. The facts concerning the uses to which plaintiff's power system property is devoted under operation by said common management of the affiliated group, and which are relevant to an apportionment of the fair value of the power system property to Martinsville use, are as follows:

Plaintiff's power system property is located in a group of contiguous counties forming an intervening territory between the territory to the southwest where Indiana Electric Corporation's Dresser plant and radiating transmission lines are located and the territory to the north and east where the transmission lines and other property of the other affiliated companies are located.

There is annually nearly twice as much current transmitted onto plaintiff's transmission lines from the transmission lines of Indiana Electric Corporation as is required to satisfy the demands of plaintiff's individual customers in its own territory. The excess of this current is transmitted over plaintiff's high tension lines and is delivered principally onto similar lines of Attica Electric Company at Attica and Northern Indiana Power Company at Lafayette for distribution by those companies to their customers in their respective territories. This excess current is so transmitted over plaintiff's lines over a distance of approximately ninety miles. The amount of current manufactured annually at plaintiff's three small generating plants since 1927 has been less than one-fourth of one per cent of the total quantity of current handled on plaintiff's power system property.

In 1929 a total of 84,260,392 K. W. H. was handled on

plaintiff's power system property, and only 123,470 K. W. H. were manufactured by plaintiff. Of this total, 2,532,798 K. W. H. were delivered at the Martinsville substation onto the local distribution system in Martinsville for local distribution, 6,014,822 K. W. H. were delivered at the Attica substation onto the lines of Attica Electric Corporation for distribution to its customers, 30,239,200 K. W. H. were delivered at the Lafayette substation onto the lines of Northern Indiana Power Company for distribution to its customers, 1,364,942 K. W. H. were delivered onto the lines of Indiana Electric Corporation, and the balance was delivered at plaintiff's other substations for local distribution by it and part was lost in transmission and transformation. In the twelve month period ending May 31, 1930, the total amount of current handled on plaintiff's lines was 85,295,839 K. W. H., only 77,945 K. W. H. of which were manufactured by plaintiff. Of this total, 2,528,511 K. W. H. was delivered at the Martinsville substation, and the remainder was disposed of substantially in the same manner as for the year 1929.

The principal source of this current is the Dresser plant. In 1929 plaintiff received 79,962,702 K. W. H. from Indiana Electric Corporation and for the twelve month period ending May 31, 1930, the amount received from the same source was 84,778,437 K. W. H. A small amount of current is interchanged by plaintiff with Indiana Electric Corporation and with Northern Indiana Power Company. For example, during the twelve month period ending May 31, 1930, 1,585,400 K. W. H. were delivered from the lines of Northern Indiana Power Company onto plaintiff's lines. Similarly, other interchanges of current are made between

said affiliated corporations. Monthly settlements are made between the affiliated corporations on net balances of current received at the rate of one cent per K. W. H.

Plaintiff is charged at the rate of one cent per K. W. H. for all current received by it from Indiana Electric Corporation. Prior to December 1, 1929, plaintiff was credited at the rate of one and a quarter cent per K. W. H. for the current delivered from its lines at Attica and Lafayette onto the lines of its affiliated companies. Since that date, plaintiff is credited at the same rate it is charged, viz.: one cent per K. W. H. for the current actually delivered from its lines onto the lines of its affiliated companies, and the line and transformation losses incident to handling such excess current fall upon plaintiff.

Plaintiff can at all times obtain from Indiana Electric Corporation all current needed by it to supply its customers in its own territory. It is not necessary to the giving of adequate service by plaintiff that it receive any current from Attica Electric Corporation or Northern Indiana Power Company, and it has in the past received but little current from those companies. There is no substantial or necessary use of the power system properties of Attica Electric and Northern Indiana Power Companies for furnishing service to plaintiff's customers in reciprocation of the use made of plaintiff's property for furnishing service by those companies to their respective customers. Plaintiff's power system property was planned, constructed and is operated by said common management for the use of the customers of said affiliated companies as well as for the use of plaintiff's customers, and the same is operated as a part of said affiliated system of properties

for the benefit of said affiliated companies as well as for the benefit of plaintiff.

The current delivered at the Martinsville substation comes either over plaintiff's high tension line running to Martinsville from Indiana Electric Corporation's Lenore substation near Indianapolis, or over another of plaintiff's lines running from said corporation's Cloverdale substation to Spencer and Martinsville. Plaintiff's high tension line running from Clinton to Attica and Lafayette, and over which most of said excess current is delivered to affiliated companies, is not necessary for furnishing adequate service at Martinsville.

13. The ratio of substation deliveries at Martinsville to total substation deliveries made by plaintiff in 1929 is 3.34%. In the same year the ratio of actual sales made to customers in Martinsville to plaintiff's total sales, inclusive of the current delivered at Attica and Lafayette, is 3.027%. The ratio of Martinsville peak demand in 1929 to plaintiff's system peak demand in the same year, but occurring on different days in the year, is 3.01%.

There are included in plaintiff's entire power system property, as the same has hereinbefore been appraised and valued, isolated transmission lines also branch lines and substations which are not directly used and useful for transmitting current to Martinsville.

An apportionment of power system property to Martinsville use on the basis of 3.30% of its fair value is reasonable and fair.

That percentage of the February 1, 1929, fair value ($2,621,830) is $86,520.39, and of the May 1, 1930, and subsequent fair value ($3,066,395) it is $101,191.00. These

said affiliated corporations. Monthly settlements are made between the affiliated corporations on net balances of current received at the rate of one cent per K. W. H.

Plaintiff is charged at the rate of one cent per K. W. H. for all current received by it from Indiana Electric Corporation. Prior to December 1, 1929, plaintiff was credited at the rate of one and a quarter cent per K. W. H. for the current delivered from its lines at Attica and Lafayette onto the lines of its affiliated companies. Since that date, plaintiff is credited at the same rate it is charged, viz.: one cent per K. W. H. for the current actually delivered from its lines onto the lines of its affiliated companies, and the line and transformation losses incident to handling such excess current fall upon plaintiff.

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An apportionment of power system property to Martinsville use on the basis of 3.30% of its fair value is reasonable and fair.

That percentage of the February 1, 1929, fair value ($2,621,830) is $86,520.39, and of the May 1, 1930, and subsequent fair value ($3,066,395) it is $101,191.00. These

apportioned values together with the fair value of the local property ($102,947.00) constitute the total fair values of plaintiff's electric property used and useful for furnishing service at Martinsville at said respective times. Thus determined, the total fair value at February 1, 1929, was $189,467.39, and at May 1, 1930, and since, it is $204,138.00.

The fair value of the physical elements of said property, similarly determined, at February 1, 1929, (apportioned $70,119.39 and local $84,589) is $154,708.39, and at May 1, 1930, and since it is (apportioned $84,790 and local $84,589) $169,379.00.

14. A return at the rate of 7% per annum on said total fair value is a fair return.

A composite rate of 4% per annum on the fair value of the physical elements of said property is sufficient for the depreciation requirements of said property.

15. The cost of the current delivered in 1929, and since, at the Martinsville substation for local distribution in Martinsville is $.0133 per K. W. H. This cost includes the purchase price of one cent and all other power system expenses, except annual depreciation.

A charge to operating expenses against the revenues from the rates complained of in the amount of $400 per year for ten years, as fixed and allowed by the Commission, is a sufficient allowance to such operating expenses on account of expenses reasonably occasioned by this rate inquiry.

For the twelve month period ending May 31, 1930, the expenses chargeable to such operating expenses and annual depreciation were as follows:

Power—2,528,511 K. W. H. at $.00133	$33,629.20
Other expenses, including taxes	20,624.18
Rate case expense	400.00
Annual depreciation (4% of $169,379.00)	6,775.16
Total	$61,428.54

There would have been available for return for said twelve month period $20,440.00 out of the total operating revenues of $81,868.72 which the rates complained of would have yielded if in force during said period. This would have made a return for that period of slightly more than 10% on said fair value of $204,138.00.

For the calendar year of 1929 the total operating expenses, including annual depreciation, were $62,250.54. There would in that year have been available for return $22,499.59 out of the total operating revenues of $84,750.13 which the rates complained of would have produced if then in force. This would have made a return for 1929 of more than 11% on said fair value of $204,138.00, and would have made an even greater rate of return on the February 1, 1929, fair value of $189,467.399.

16. The rates complained of, if in force at Martinsville, would at all times since February 1, 1929, have produced, and would now produce, sufficient operating revenues to pay all operating expenses, taxes, amortized rate case expenses and annual depreciation chargeable against said revenues, and a fair return of more than 7% per annum on the fair value of plaintiff's electric property to the extent that the same is used or useful for rendering the electric service to which said rates apply.

17. The facts found by the Special Master as they are stated in his report filed herein are true.

The Master's findings.

The Master's findings of fact (R. 73-132) are merged in the court's special findings on the points covered by the court's findings.

The court's findings do not include a finding on what is a fair "gateway" charge under the method the Commission used, but the Master's do, and he also tested the rates under that method. The Master's findings of said "gateway" charge, and his tests of the rates under that method are as follows (R. 127-130):

XLIV.

In 1927 the average cost per K. W. H. actually sold by plaintiff to Martinsville, (substation input) as shown by its own books, was:

(Ex. 111-67)	$.0147
In 1928 it was (Ex. 111-67)	.0134
In 1929 it was (Ex. 107-47)	.0133
Total	$.0414
Or an average of	$.0138

In arriving at the above figures the company took the total substation readings for each month and deducted therefrom current purchased direct, which gave the net power system input; it then took the total Martinsville readings for each month and obtained the percentage of Martinsville readings to the total substation readings;

it then figured total power cost, which included power purchased, steam power generation, transmission expenses, substation expenses, general expenses and taxes, deducted direct purchases and thus arrived at the net apportionable power costs for the whole system. It then applied the percentage of current delivered to Martinsville to the net apportionable power cost, which gave it the proper apportionable power costs to Martinsville.

However, in the above figures nothing is included to take care of depreciation and return: proper allowance should be made for these: I have found and allowed for a depreciation of:

4% on $2,569,395, or.....$102,775.80
and provided for a 7% return on $3,066,395 or. 214,647.65

Total $317,423.45

The cost per K. W. H. to produce and provide for such 4% depreciation and 7% return, based on 75,811,628 K. W. H. for the year 1929, would be $.0042—which, added to the above average for the three years of 1927, 1928 and 1929, would make $.018 per K. W. H. at Martinsville, and which amount I find to be a fair and adequate gateway rate for Martinsville.

XLV.

GATEWAY METHOD APPLIED FOR 1929 USING $.018 PER K. W. H.

If the Gateway Method and the calendar year of 1929 are used as the basis of computation of the proper rate of return herein, I recapitulate and find as follows:

Gross income under rates prescribed by Commission for year 1929.....$84,750.13

EXPENSES.

Power—2,532,790 K. W. H. at $.018	$45,590.21	
Distribution	5,111.28	
Consumption	1,475.80	
Commercial	2,671.10	
New business	3,038.92	
General and miscellaneous (less rate case expense)	9,731.27	
Taxes	2,527.23	
Rate expense	400.00	
Appliance sales—Loss	503.56	
Total	$71,049.37	
Indirect charge to construction—Credit	2,784.60	
	$68,264.77	
Depreciation for Martinsville local	3,383.56	
Total		71,648.33
Leaving a balance for return of		$13,101.80

And which amount is in excess of 7% of what I have hereinbefore found ($102,947) is the fair value of Martinsville Local Property.

XLVI.

GATEWAY METHOD APPLIED FOR YEAR ENDING MAY 31, 1930, USING $.018 PER K. W. H.

If the Gateway Method and the year ending May 31, 1930, are used as the basis for computation herein, I recapitulate and find as follows:

Gross income under rates prescribed by Public Service Commission		$81,868.72

EXPENSES.

Power—2,528,511 K. W. H. at $.018	$45,513.20	
Distribution	5,607.82	
Utilization	1,499.58	
Commercial	2,255.72	
New business	2,590.39	
General and miscellaneous	10,432.88	
Uncollectible accounts	578.06	
Taxes	2,579.98	
Rate expense	400.00	
Total	$71,457.63	
Indirect charges to construction—Credit	4,920.25	
	$66,537.38	
Depreciation for Martinsville local	3,383.56	
		69,920.94
Leaving a balance for return of		$11,987.78

And which amount is in excess of 7% return on what I have hereinbefore found ($102,947) to be the fair value of Martinsville Local Property.

The Master further found that the operating revenues from the rates in question for the calendar year 1929 would have been sufficient to yield a 7% return for that year on the fair value of $102,947 if the power cost at the

"gateway" were computed at $.02021 per K. W. H. (R. 126). In other words, that after allowance were made for a 7% return, 4% annual depreciation, and all other local operating expenses, enough would be left out of the operating revenues so that the power used could be charged at the rate of $.02021 per K. W. H. at the Martinsville gateway, which is a higher rate than the $.018 rate which he found fair.

Corrections of, and supplements to, statements in appellant's brief of the Master's findings.

The statement at page 8 of appellant's brief that the Master found for the rate base the total of $102,947, as the fair value of the Martinsville local property, and $101,191, as an allocated portion of the fair value of appellant's power system is incomplete. The Master did find a rate base so constituted and totaling $204,138 as of May 1, 1930, for the purpose of one method of testing the rates. It is this base that he used in his tests of the rates under what he termed the "Allocation Method" in Findings XL and XLI (R. 123-125). The court found the same rate base and used it in its test of the rates (R. 168). For February 1, 1929, the rate base similarly constituted from the Master's findings is $189,467.39 and was so found by the court (R. 169). The Master's finding of the fair value of the Martinsville local property for February 1, 1929, is $102,947 (R. 96), and of the power system property for the same date it is $2,621,830 (R. 100), 3.30% of which, or $86,520.39, added to the $102,947 makes the $189,467.39. This last figure was not used in the tests made of the rates since they showed a fair return on the larger, May 1, 1930, rate base.

The percentage of 3.3 used by the Master for apportionment to Martinsville of power system value is found by the Master on a wider basis than indicated at page 109 of appellant's brief. The supporting facts on which it rests appear in Finding XXVIII (R. 109), and are (a) the ratio of actual sales of K. W. H. to Martinsville consumers to the total sales (all line and transformation losses eliminated) made by appellant in 1929, which was 3.027%; (b) substation output at Martinsville to total substation output in 1929, which was 3.34%; (c) sales ratio in 1928, which was 3.02%; (d) substation output ratio in 1928, which was 3.38%; (e) Martinsville maximum consumer demand to system maximum consumer demand in 1929, which was 3.01%.

The statement at page 9 of appellant's brief that the Master did not use actual cost of electrical energy is erroneous in respect to his tests of the rates made in his Findings XL and XLI (R. 123, 124) under the "Allocation Method." In those tests the Master used for power cost the figures "as carried on books of company." In those tests the items of annual depreciation and return on power system property devoted to Martinsville use are not reflected in the power cost used, but are computed on the rate base which includes an allocated part of power system value.

In the Master's tests of the rates in Findings XLV and XLVI (R. 128, 129) under the "Gateway Method", the power cost is computed at the $.018 per K. W. H. gateway charge, which charge includes the items of annual depreciation and return on power system value devoted to Martinsville use. The failure in appellant's brief to dis-

tinguish between these differently computed power costs under the "Allocation Method" and the "Gateway Method" of test is what led to the erroneous comparison of power costs at page 93 of the brief. In computing power cost, appellant used the $.022897 per K. W. H. rate which already includes items of 4% for annual depreciation and 8% for return on power system property (R. 300), and the item for depreciation on allocated power system value is again included in its $11,516.60 figure at page 93 of the brief. The court used actual power cost exclusive of depreciation and return on power system property, and then allowed 4% for depreciation and 7% return on the whole rate base which included an allocated portion of power system value.

In respect to appellant's statement at page 9 of its brief that the Master "arbitrarily" excluded all but $4,000 of rate case expense, attention is called to his complete finding on that subject in Finding XXXI (R. 114-116), in which it is found that "no evidence was offered in this case directly on the proposition as to whether the allowance by the Commission was reasonable or unreasonable." And, "the evidence is not sufficient to justify a finding that the Public Service Commission has made any substantial error in its allowance for rate case expense." It will be shown under "Evidence" and under "Argument," post, that the Master did not err in his finding that $50,000 was an exorbitant charge (R. 114) against Martinsville, and should not be charged as operating expenses in whole against revenues from Martinsville in an inquiry of whether the rates fixed are adequate.

The true way in which the "gateway" charge of $.018

was computed by the Master in his Finding XLIV, set out in full above. In this connection, attention is called to the Master's Finding XLII (R. 125, 126) where he computed a "gateway" charge of $.01718 for 1929, on the following basis:

Total power system expense as shown by the company's books	$1,000,551.54
(See exhibit 107, page 36)	
Add substation cost charged direct to Martinsville distribution	3,384.80
	$1,003,936.34
Deduct—Portion of indirect charges to construction	18,242.68
	$ 985,693.66
Depreciation, 4% on $2,569,395 (Finding No. XXXIII)	$ 102,775.80
Return, 7% on $3,066,395	$ 214,647.65
Total of above items.....	$1,303,117.11

Total substation output at "Gateway," 75,811,628 K. W. H.

Cost per K. W. H. on this basis (depreciation and return included) is ($1,303,117.11 ÷ $75,811,628) 1.718 cents or $.01718.

Findings concerning appraisals.

The Master made findings concerning unit prices, depreciation and intangible items in the appraisals introduced in evidence. In Finding XXIII (R. 100) the Master

found that the unit prices used by Abbett in the appraisals of the engineering department of the Commission were well founded and adequate, and that Abbett's deductions from cost new on account of accrued depreciation were based on observation of the property, the wear and tear thereon, its age, present condition, and its probable useful life, and that these deductions were fair and reasonable.

In Finding XIV (R. 87) the Master compared analyses of unit prices used by Abbett and by Spooner and Merrill, and found that those of Spooner and Merrill were higher due to their loading for contingencies and omissions in addition to an overall allowance of 15% for "general overhead expense" which also contemplated contingencies such as Acts of God, storm, weather conditions and unforeseen conditions. The Master found the Spooner and Merrill unit prices were unreasonably high (R. 94).

In Finding XII (R. 85) the Master finds that Stone and Webster were employed to check the Spooner and Merrill appraisal and that they added a further overall percentage on the theory that the Spooner and Merrill unit prices were too low. The Master found the Stone and Webster unit prices too high and the amounts added for "general construction" costs unwarranted. He also found their allowances for organization, working capital, cost of financing and going value to be too high (R. 86).

The court's itemized statement, ante, of the $102,947 fair value found by it for the Martinsville local property is the same as that of the Master in his Finding XIX (R. 94-96). The $62,952 sum in that statement is the aggregate for "land, plant and equipment" as appraised

by the Commission engineers (R. 94). The other items aggregating about $40,000 are predicated as follows: the $10,701 item for "General contingencies and general overhead" is Spooner and Merrill's figure and was adopted in lieu of the Commission engineers' analagous figure (R. 95); the $10,936 item for "Structures x x x for local Martinsville use only" is Spooner and Merrill's figure for an allocable part of the small generating plant at Martinsville, which part they thought should be treated as local property but which the Commission engineers had treated as belonging to power system property (R. 87 and 97); the $3,358 item for "working cash" is Spooner and Merrill's figure (R. 95); the $6,500 item for "materials and supplies," and the $8,500 item for "going value" represent figures found by the Master upon the whole evidence as being in his judgment adequate and fair.

The court's itemized statement, ante, of the $3,066,395 fair value found by it for appellant's power system property is the same as that of the Master in his Finding XXII (R. 99). Here again, the Master used the Commission engineers' figure ($1,765,530—see Exh. 103, R. 308), for the items constituting "land, labor and equipment." The other items aggregating over $1,300,000 were derived from other evidence. The $264,000 item for "undistributed construction costs" is higher than the figure of the Commission engineers (see Exh. 103, R. 308) and is computed on Spooner and Merrill's percentage (15%); the $539,065 item for "Capital addition" is taken from plaintiff's (appellant) Exhibit 4-B (R. 276); the $80,000 item for "working cash," the $5,000 for "fuel stock," the $162,000 for "materials and supplies," and

the $250,000 for "going concern value" represent figures found by the Master upon the whole evidence as being in his judgment adequate and fair.

The Master found that the electric property which appellant contends is used and useful in serving Martinsville consists, in a general way, of three small generating plants located at Clinton, Sullivan and Martinsville; 350 miles of high voltage transmission lines; 135 miles of low voltage transmission lines; 52 high voltage substations; 39 low voltage substations; 61 distributing systems; 46 rural distribution systems; and 16930 meters in service (R. 81-82).

The Master found that it was not necessary in this case to find the fair value of all of appellant's property regardless of how it is used or where it is located (R. 110). He found that in making allocations of power system value and power system expenses to Martinsville it would be unfair to Martinsville customers to eliminate from the calculations the current sent from Indiana Electric Corporation over appellant's lines to affiliated companies for their uses, thus leaving a major use uncompensated and placing a major expense incident to such use on appellant's local customers (R. 111, 112). The Master also found that appellant's suggested elimination in its exhibit 28 of a portion of the value of its Clinton-Lafayette line and of a portion of expense on account of the use of that line for affiliated company purposes does not leave the remainder as representative of property used and useful only for appellant's own purposes, and that the suggested allocation in exhibit 28 is not a fair division or proper allocation of plaintiff's power system property as a whole as to use for appellant's own

customers and as to use for its affiliated companies (R. 113).

The Master found that the "gateway" rate of $.022897 for Martinsville used by appellant in its exhibit 28 is not justified by the evidence in the record, or by good reasons (R. 120).

THE EVIDENCE.

There are in order some corrections of, and supplements to, appellant's statement of the evidence.

Correction. Appellant's statement at page 11 of its brief that its entire electrical property "is shown without dispute to constitute one single physical and economic operating unit" is completely erroneous. The evidence shows that property in its entirety to be anything but a physical and economic unit. The true character and the uses of this property will presently be shown from the evidence. From that will also appear the incorrectness of appellant's next statement that its entire property constitutes a single unit the same as an electric property in a single community does. And, contrary to appellant's statement at pages 11 and 12 that the Martinsville local property has no separate existence from an operating or economic standpoint, it will appear that this local property constitutes a unit of property that is devoted exclusively to the public unit that exists within the municipality of Martinsville, and that its sole excuse for being is to give service to that public unit.

A true and complete understanding of the character and uses of appellant's electrical property calls for the evidence as to its kind and location, its physical relations

to other like properties, its uses to serve the public in other territories, its real ownership and actual management and operation, and as to other relevant facts.

Appellant's property is of two kinds, viz.: (1) local distribution systems located in numerous, isolated and widely scattered communities, and none of which, except the one in Martinsville, are of any use in rendering electric service in Martinsville. Plaintiff's witness Spooner so testified (R. 205). These local properties at Martinsville and in numerous other communities had been built by other companies and were afterwards purchased by appellant (R. 203). The distribution system in Martinsville is used and useful only for giving service to the people in Martinsville (R. 202); and (2) transmission lines shown in green on Exhibit 1 (R. 274), substations, and three small old generating plants at Sullivan, Clinton and Martinsville, which stand as standby plants for the "affiliated system" (R. 191), and not for the cities where located (R. 182). The 33 K. V. line from Lenore to Martinsville (Ex. 1) is now a 66,000 volt line and connects with a 66,000 volt line of Interstate at Martinsville (R. 185).

The affiliated system consists of the properties of the seven affiliated companies, including appellant, named at the foot of the map (R. 274) and which properties are indicated by the yellow, green, purple, red, blue, brown and orange lines (R. 188). These interconnected properties of the affiliated companies are managed and operated as one property (R. 193).

Every dollar's worth of the stock and securities of appellant company, as well as those of the six other affiliated companies are owned by Central Indiana Power Company

(R. 236). These seven affiliated companies have a common president, Andrus, (R. 183) and a common vice-president, Schiez, (R. 230), who is also comptroller of the real owner of these properties, Central Indiana Power Company (R. 237). These are Insull companies (R. 188).

The construction of transmission lines or power system property by appellant or by any other of the affiliated companies is made under direction of the same management (R. 192). The power system property of appellant was not conceived for only its purposes. Its transmission lines were conceived and erected as a comprehensive part of the whole power distribution systems of the affiliated companies. Its lines are designed to coincide with a system comprised of all the affiliated companies' lines (R. 186).

Constructively, from an operating standpoint, the whole is one system, *but because of the existence of different companies* it is necessary to have a bookkeeping figure (R. 189). The common president of the affiliated companies exercises general supervision of their operation. He gives final approval for the different companies as to where they build lines. The question of where appellant buys its electricity is determined by the ownership of the lines (R. 189). The president, Andrus, of all affiliated companies is responsible for the operation and power supply of each and all of the interconnected companies (R. 183).

Current is metered as it leaves one company's property and goes on another. Those readings are washed out and the differential is settled for at one cent per K. W. H. It is a bookkeeping procedure. The one cent price is fixed by the common president. The interchange goes right on. If the companies make a pull-down on appellant, the cur-

rent flows in. There is no order directing the flow of the current, and no contract fixing the price of interchanged current (R. 186).

In 1930 there were about 35,000,000 kilowatt hours delived over appellant's Clinton-Lafayette line to Attica Electric Company and Northern Indiana Power Company from the Dresser plant, which is paid for at the rate of one cent. Appellant generates practically no power and buys practically all its current. If Northern Indiana Power Company and the Dresser plant want to exchange electricity, they do it over appellant's transmission lines, and plaintiff gets nothing from either of the companies for the use of its transmission lines (R. 187). The question of what affiliated companies should be charged by appellant for electricity delivered to them over its lines has never been taken up with the Public Service Commission to have a rate fixed (R. 187). Appellant gets for the current it delivers to affiliated companies at the north end of its lines exactly the same rate that it pays (R. 188).

The affiliated system is also connected at Martinsville with the system owned by the Interstate Public Service Company in Southern Indiana, whose lines and plants are operated in common with the operation of the lines and plants of the affiliated companies (R. 185), and which also is an Insull company (R. 187).

The affiliated system is also connected with another Insull plant east of the Illinois state line, State Line Company, which is the largest plant built anywhere (R. 182, 187).

The affiliated system is also connected with a new Insull plant at Michigan City, Indiana, with a view to releasing

current manufactured at Dresser for use elsewhere (R. 183).

The affiliated system is also connected with a large plant, Twin Branch, at South Bend, Indiana, and also to a large plant, Columbia, at Cincinnati (R. 181, 182).

The local generating plant at Martinsville once served that city, and it had no other source of electricity (R. 187). The current used at Martinsville now comes off a 66,000 volt line from Lenore substation (R. 185, 186).

The price that appellant pays its affiliated company, Indiana Electric Corporation, for current is fixed by Andrus as president of Indiana Electric Corporation, and not as president of appellant company (R. 192). The operations of the affiliated companies is under the same management (R. 192). Their properties are interconnected and are managed and operated as one property, but each company is a separate corporate entity owning separate property (R. 193).

Martinsville is a distinct municipality and is the county seat of Morgan County. It is one of scores of other separate and distinct municipalities, including numerous other county seat cities, scattered in the large expanse of territory occupied and served by the singly managed affiliated power system property and of which appellant's power system property is but a related and integraded parcel (Map, R. 274). The local properties, at Martinsville and elsewhere, were acquired by appellant after others had built them, and its power system property was constructed in recent years (R. 203).

Correction. At page 16 of appellant's brief it is said that appellant has established and maintained uniform

rates for the same classes of service in cities, towns and communities of the same class. The uniformity testified to (R. 192) is only that appellant has essentially uniform "lighting and large and medium power rates" in its territory, and that essentially uniform rates are in effect throughout the territory of the affiliated companies in order to prevent rate discrimination between various "cities". The 100 rate reductions made though approved by the Commission were made without hearing (R. 192). There have been no company-wide rate inquiries before the Commission for appellant or for any of the other of the affiliated companies (R. 193). It has been *attempted* to make similar rates for similar classes of service in cities of the same size (R. 185).

Gateway Cost. The common president of the affiliated companies, Andrus, testified: "The cost per kilowatt hour outside of the municipalities is less than the cost for kilowatt hour delivered to the city gateway because the load factor outside is much better than the load factor inside cities" (R. 185). But no evidence was given to show what that difference in cost would be. On the contrary, appellant's witness, Sittinger, testified: "The same gateway cost to all cities and towns and all power customers connected to this system would be bound to prevail if a gateway price is to be based on the system as a whole. *I should think that within the Wabash Valley property the same gateway price to all the gateways of the different towns and to each and all of the power customers, like coal mines and gravel pits, would be equitable*" (R. 227).

Correction. At page 18 appellant's brief says it "offers" current at the Martinsville substation for local dis-

tribution in Martinsville at a cost of $.024996 per K. W. H. There is no such evidence, and no such charge is made in fact. That rate of charge was computed for 1928 by appellant's vice-president, Schiez, in his exhibit 21 (R. 289) for the purpose of this case. That computation is made on the basis of Spooner and Merrill's appraisal and not on the power system value found by the court and includes a 4% annual depreciation charge and an 8% (not 7% as found by the court) return on that appraisal (R. 289). Moreover, appellant's power system was used in 1928 to deliver 37,687,220 K. W. H. to affiliated companies (R. 291) for which they were charged only 1¼ cents per K. W. H. (R. 234). To deliver that much current appellant had to receive 42,238,947 K. W. H. at 1 cent onto its lines from Indiana Electric Corporation (R. 291) because 10.7% was lost in transmission (R. 291). This line loss and all power system expense, and all annual depreciation and return requirements on appellant's power system property were thrown on the cities and towns served by appellant's power system property in the computation of the $.024996 gateway charge (R. 289). That computation of that gateway charge was made in exhibit 21 for use in the computation at page 2 thereof (R. 288) to support an alleged deficit of $1,575.32 from Martinsville business for 1928 under existing rates and to support an alleged deficit of $16,141.65 under the rates in question, again using the Spooner-Merrill appraisal for the Martinsville local property, and including in Martinsville local operating expenses $5,180.65 "annual amortization for this rate case expense" (R. 288).

Appellant's statements on page 18 of its brief concerning costs of manufacturing current by means of a local plant

are not complete and are inaccurate in some respects. Appellee's witness, Husselman, an experienced engineer, prepared exhibit 127 (R. 321) of the cost of an adequate Diesel engine plant at Martinsville to produce locally the energy there required, and of the cost to produce the energy by such a plant, which he found to be $.0188136 per K. W. H. His testimony thereon is at R. 267, 268.

Husselman's computation of $.446 per K. W. H. in appellant's local Martinsville plant was not made on the question represented at page 18 of appellant's brief. That computation was made in his exhibit 129 (R. 321, 322) on the question of the value of the local plants at Martinsville, Clinton and Sullivan as standby plants to the whole affiliated system, and he there showed that every kilowatt hour manufactured by those plants in 1929 actually cost $.446. That exhibit shows that the power so manufactured cost $83,004.38 to effect a saving of $21,942.00 in not taking the current under appellant's contract with Columbia Power Company.

The other kilowatt hour costs set out at page 18 of appellant's brief are figures prepared by certain of appellant's witnesses as a result of computations made by them on various bases of manufacture by hypothetical local steam plants involving remodeling the local standby plant on two plans and using it again for local generation purposes, and by the construction of a new local steam plant (Hamilton, R. 217, 218; Sittinger, R. 223-228; Martin, R. 214-216).

Appraisals made for both merger and rate hearings.

In 1927 there was a petition before the Public Service Commission to merge appellant and ten other subsidiaries

of Central Indiana Power Company. Spooner and Merrill's Sept. 1, 1927, inventory and appraisal of appellant's entire property, along with appraisals of the ten other companies, was made and used for that merger hearing. Spooner was employed by the Central Indiana Power Company to make these appraisals of the properties of its eleven subsidiaries (R. 203), and his bill for services for making all of these appraisals went to the same place. Spooner does not know how his charges were distributed as between the merger and rate hearings (R. 203).

The Commission engineers also made appraisals of the entire property (R. 243), for the 1928-29 merger hearing. Their appraisal in this case of appellant's power system property was prepared from the appraisal used in the merger case (R. 247). The power system property was segregated from the general inventory and appraisal used in the merger proceeding in accordance with appellant's instructions to its auditing department for the classification of its electrical properties (R. 247).

Appellant's brief at page 20 does not fairly present the character of appraisals made by the Commission engineers. The Commission engineers, under the general supervision of Mr. Wenger, chief engineer (R. 262), and in direct charge of Mr. Abbett (R. 243, 246), made inventories and appraisals of both the Martinsville local property and of appellant's entire power system property. They did not, for the purpose of this case, make an inventory and appraisal of the other local properties in the fifty other communities and which Spooner testified are of no use in giving service in Martinsville (R. 205).

The May 1, 1930, inventory used for the Martinsville

local property was made jointly by the Commission engineers and Spooner and Merrill (R. 243). In their appraisal of this local property, the Commission engineers used May 1, 1930, prices (Exh. 100, R. 307, and Exh. 101, R. 308), whereas Spooner and Merrill and Stone and Webster used May, 1, *1929*, prices (Exh. 2-H, R. 275, and Exh. 8, R. 278). The Commission engineers' May 1, 1930, appraisal of the Martinsville local property is $83,000 (R, 307, 308).

The inventory used by the Commission engineers in their appraisal of appellant's power system property was procured from a Sept. 1, 1927, inventory and appraisal of the entire property used in the merger proceeding (R. 247). To this power system inventory they applied March, 1929, prices (Exh. 103, R. 308, Exh. 104, R. 309), and added net additions to December 31, 1929. This appraisal is $2,868,366. Spooner and Merrill and Stone and Webster also used a Sept. 1, 1927, inventory for their appraisal of the entire property (local and power system), but applied May 1, 1929, prices, and added net additions to May 1, 1930 (Exh. 2-G, R. 275, Exh. 7, R. 277). Stone and Webster's appraisals resulted from a check up of Spooner and Merrill's appraisals (R. 219). In Exhibit 7, Stone and Webster added a "general contingency" item of $160,000, which ordinarily would be distributed under the head of structural costs (R. 219, 220). This item was added because they thought Spooner and Merrill's unit prices were 5% too low (R. 222).

The unit prices used by the Commission engineers were by them thoroughly analyzed. (R. 243, 244, 245, 252, 253). These unit prices used by the Commission engineers are

based on actual construction practice and are the same type that a contractor would use in his estimating department. There are seventeen engineers in the Commission's engineering department. The costs used in their appraisals are made up from continuous studies wherever accurate data can be obtained. Set-ups are continually changed to agree to actual practice. Data so obtained is kept in the files of the Commission (R. 261, 262). Abbett obtained quotations for the various materials, freight allowance was made, and 3% added to take care of storage and purchase. Copper prices were obtained as of May 1, reckoned in carload lots. Prices and transformers were gotten from appellant's books. The labor set-ups were those found in experience to be a practical method of doing the work. (R. 243, 244).

The Commission engineers observed the condition of the property by inspection and an estimate was made as to how much of the life of the useful property had been consumed (R. 246).

The unit prices used in the Stone and Webster appraisals "were made up by one of their men in their office who never saw plaintiff's property and who never came on the grounds" (R. 225).

Husselman, engineer for the city, checked up on the Commission engineers' appraisal and found their unit prices to be correct (R. 269). He made his own appraisals as a result of this check-up, giving effect to reduced copper prices. In his exhibit 131 he appraises the Martinsville local property at $81,127 for May 1, 1930, and at $79,730 for Sept. 1, 1930 (R. 322). He appraises the power sys-

tem property (exclusive of the three local generating plants, R. 269) at $2,209,662 for Sept. 1, 1930 (R. 323).

Correction. Appellant's statement at page 20 that the Master ignored entirely the appraisal of Stone and Webster is incorrect. He devoted his entire Finding XII (R. 85, 86) to this appraisal, and found their unit prices to be too high, and their allowances for intangibles exorbitant.

Neither is it true that the Master rejected the appraisal of Spooner and Merrill as stated by appellant at page 20 of its brief. The Master thoroughly considered their appraisal in his Findings XI (R. 82), XIII (R. 82), XIV (R. 87), XV (R. 91), XVII (R. 93), XVIII (R. 93) and XLVII (R. 130). He found Spooner and Merrill's unit prices were too high on account of being loaded by certain percentages (R. 94). The Master adopted the unit prices used by the Commission engineers for the reasons stated by him in Finding XXIII (R. 100-102).

Approximately $40,000 of the fair value of $102,947 found by the Master for the Martinsville local property is based largely on Spooner and Merrill's views on certain items (R. 94-95). And only $1,765,530 of the $3,066,395 fair value found for power system property is based on the appraisal of the Commission engineers (R. 99 and Exh. 103, R. 308).

Appellant's statement at page 20 of its brief that the Master acted arbitrarily in his finding of the value of the entire property is incorrect. The Master found in his Finding XXVIII (R. 110) that it was not necessary in this case to value the entire property, including the numerous local distribution systems elsewhere which had no use to

Martinsville. But it being appellant's theory that it was entitled to a finding of the value of its entire electrical property, including all local properties, the Master made such a finding (R. 130, 131). He did not act without evidence or arbitrarily in making that finding. The unit prices of Spooner and Merrill and of Stone and Webster which the Master found too high were used by them in their appraisals of the entire property. He had the Commission engineers' unit prices applicable to the Martinsville local property, and those applicable to the power system property, and which he found adequate and reasonable, before him for comparison. He had much evidence before him concerning allowances for undistributed construction costs, working capital and going value. There was no evidence that any conditions existed in respect to the reproduction new, or in respect to the accrued depreciation, of the other local properties different from those applying to the property, which he had already valued. Hence, it was reasonable to find that the excesses in the Spooner and Merrill appraisals of the property already valued by the Master would appear in their appraisal of the rest of the local properties in about the same proportion.

Appellant's statement on page 21 of its brief based on its Exhibit 22 of income on its entire property is subject to the following explanations: The only compensation included on account of the affiliated use of appellant's power system property is that the current delivered to affiliated companies is computed at a quarter cent per K. W. H. higher than it is charged to appellant (Exh. 22, R. 295). Up to Dec. 1, 1929, it was a fact that affiliated companies were charged at the rate of 1¼ cents per K. W. H. for the

current they received from appellant's lines, but since then it has been charged to them at 1 cent the same as it is charged to appellant (R. 234), and appellant now absorbs the line losses incident to its transmission. The "Gross revenue" of $1,741,308.40 therefore (R. 295) contains a fictitious amount that is determinable by the quantity delivered to affiliated companies from Dec. 1, 1929, to May 31, 1930, at one quarter cent per K. W. H., and which appellant never received.

The 4.15% return on appellant's entire property for 1929 is also subject to the explanation that the whole power system expense and the whole requirement for annual depreciation is included in the calculation, and that the only compensation for use of appellant's power system property for affiliated companies is found in the one quarter cent per kilowatt differential that was charged for the first eleven months of 1929.

No evidence was introduced to show that Central Indiana Power Company as the real owner of the whole affiliated system used and operated as a whole was not getting a fair return on the whole.

Appellant's statement, at page 21 of its brief, that in finding that 3.3% of appellant's power system property should be apportioned to Martinsville, the court gave no consideration to the "actual uses" to which the property is shown by the evidence to be put, is completely erroneous In the court's 12th and 13th findings (R. 164-167) the court found the facts as to the actual uses of this power system property and considered them expressly in relation to the question of apportionment of power system value,

and in which finding it based the 3.3% on the basis of the "actual use" of the property.

It is true, as contended by appellant at pages 21 and 22 of its brief, that if the court had excluded the use of appellant's power system for transmitting current to affiliated systems and if it would have saddled the whole expense, maintenance, annual depreciation and return requirements of appellant's power system property only on the local communities in appellant's territory, a higher apportionment would have resulted. Much of the evidence of the actual use of appellant's power system property as an integrated parcel of the affiliated system under the common management and common operation has hereinbefore been set forth. The evidence shows that appellant's lines are used as a part of the affiliated system, under what is in reality a common ownership and under an actual common management and operation, exactly as it would be used if there were but one corporation owning the whole affiliated system. Appellant manufactures no current for sale and is purely a distributing company (R. 187). Its lines are used as a conduit (R. 187) to transmit current to affiliated companies which distribute it to communities and their territories the same as appellant does. Of current so transmitted to Northern Indiana Power Company over appellant's lines, 2,917,098 K. W. H. were wholesaled to the Tipton Municipal plant for $.0162 per K. W. H. (Exh. 124, R. 320) in 1929 (R. 265). Tipton is of comparable population and consumption (Exh. 124, R. 320) to that of Martinsville (R. 265).

The use of appellant's lines to transmit current from Indiana Electric Corporation to Northern Indiana Power

Company's power system property or to any part of the affiliated system is not in virtue of any contract (R. 186). The passing of current onto appellant's power system property and from there onto power system properties of other affiliated companies does not constitute deliveries under purchases and sales between them and the rate at which monthly settlements are made are not wholesale or any other kind of sale rates. They represent a mere "figure for bookkeeping purposes", because of "the existence of different companies" which own parts of the affiliated system which is "one system" from "an operating standpoint" (R. 189). The 1 cent rate at which differentials is settled is not contractual, but is fixed by Andrus (R. 186) as chief executive of all of the affiliated companies, and who is individually "responsible for the operation and power supply of each" (R. 183). There is not even an order directing the flow of current interchanged, but it "goes right on". If the companies make a pull down on appellant, the current flows in (R. 186). "The properties of the affiliated companies are managed and operated as one property" (R. 193).

In appellant's table, following page 26 of its brief, on Martinsville local electric property the item of "working cash" in the Spooner and Merrill appraisal is given at $5,358, whereas it is $3,358 (Exh. 2-H, R. 275), and was adopted by the Master (R. 95).

Appellant's statements at pages 27 and 28 of its brief that the Master's finding on values is discredited because he failed to follow its engineers is unwarranted by the evidence. The manner in which the Master thoroughly considered all appraisals has already been set out herein-

before. The three-judge court also had before it all of these appraisals and the testimony of all engineers, and considered appellant's exceptions to the Master's findings of value, and the court came to the same conclusions on values as the Master did. Appellees' engineers are well trained and experienced appraisers (R. 242, 243; R. 261; R. 266) and to the extent that the Master and the court gave their appraisals and testimony credence, it was well founded.

Appellant is a subsidiary wholly owned by Central Indiana Power Company, and appellant incurred no cost of financing in procuring the capital for the acquisition and construction of its properties. The parent company took all its securities and furnished all its capital, and advances money to appellant from time to time to finance its capital expenditures (R. 236).

The bill of complaint does not complain of the $4,000 rate case expense fixed by the Commission order. The evidence thereon that the Commission had before it was not introduced at the hearing of this case. The proceeding before the Commission was on at the same time that the merger proceeding was before it involving appellant and ten other subsidiaries of Central Indiana Power Company, and the appraisals of appellant's entire property were then made for the merger as well as for this proceeding (R. 203; 262); most of appellant's rate case expenses were incurred since the hearing before the Commission. By the end of 1928 they were shown on appellant's books at $25,972.64 (R. 317). Over $35,000 has been incurred since then.

No evidence was introduced from which a finding of

their necessity or reasonableness could be made. No data as to the number of days devoted by accountants, engineers or attorneys, or as to the reasonable value of such services, or any other data than the bare charge was shown. Spooner and Merrill made no separate billing on account of the rate case, but billed Central Indiana Power Company for all work done in the merger and rate proceedings (R. 203).

The evidence shows that some of the expense incurred is for making inventories and appraisals of fifty or more local distribution systems that have no use in serving Martinsville (Exh. 2-D, 2-E, R. 205). The evidence shows also that the appraisals made have equal value to more than fifty other communities besides Martinsville. No evidence was introduced to show that it would have been reasonable for the Commission to charge more than $4,000 against Martinsville.

In addition to the evidence on rate of return set out in appellant's brief at page 30, it appears that appellant had a surplus of $1,074,739.71 on Jan. 1, 1929, and a surplus of $1,257,884.64 on Dec. 31, 1929 (R. 313). Spooner testified that a 7% return is sufficient, except that to accumulate a surplus the rate should be not less than 8%.

SUMMARY OF ARGUMENT.

Appellees assert two general propositions:

A. The facts proved fail to show the rates are confiscatory at or since their effective date, and hence the bill is not sustained.

B. On the contrary, the rates are shown sufficient at all times since their effective date to yield a fair return on the fair value of the property actually employed in giving service to the public in Martinsville.

Points on Proposition (A), supra.

I.

Investigation and fixing of rates for service to the public unit in Martinsville are authorized by provisions of statute.

Secs. 12728, 12743, Vol. 3, Burns Ann. Ind. Stat. 1926.

The indeterminate permit under which appellant operates, and the dedication of its property to public use are subject to the foregoing provisions.

Secs. 12773-12775, ibid;
Chicago, etc., R. Co. v. Guilfoyle, 198 Ind. 9.

The principle is established that when the inquiry is as to the reasonableness of rates for service rendered in a segregated use of property that is devoted to several uses, the fair value of the property as it is employed in the

segregated use is the base for testing the rates, and that apportionment of value is required to ascertain that base.

Smith v. Illinois Bell Tel. Co., 282 U. S. 133, 149;
Minnesota Rate Cases, 230 U. S. 352;
United Gas Co. v. R. R. Com., 278 U. S. 300;
Hardin-Wyandott Lighting Co. v. Public U. Comm., 118 Oh. St. 592; 162 N. E. 262;
Eau Claire v. R. R. Comm., 178 Wis. 207; 189 N. W. 476; P. U. R., 1922-D, 666.

II.

The segregated use here involved is the use of appellant's property as employed in giving service to the public unit in the City of Martinsville. Since the inquiry has throughout been limited to rates in Martinsville and since the power system is also used for the convenience of other public units in many other municipalities, it is necessary to a test of the rates in question to ascertain the fair value of the property actually employed in rendering service to the public in Martinsville. The property so employed consists of the local distribution system located in Martinsville, together with a portion of the power system property (Court's finding 8, R. 162).

Even where all rates of a Wisconsin utility operating a similar electric property were in review, it was held by the Supreme Court of that state that segregation of uses according to municipalities served had to be recognized under the Wisconsin utility act (after which the Indiana act

is patterned), and that fair apportionments of power system property to the segregated uses had to be made.

> Eau Claire v. R. R. Com., 178 Wis. 207; 189 N. W. 476.

III.

It was not necessary to evaluate the entire property in order to find the rate base for Martinsville rates, as contended by appellant. The local distribution systems in fifty other cities, towns and communities are not employed in giving service to the public in Martinsville, and they need not be included to obtain the fair value of the property that is so employed (Spooner, R. 203, 205; Court's finding, 8 R. 162). In a similar situation the Supreme Court of Ohio held:

> It is self-evident in a rate controversy involving public utility rates charged in a particular municipality that only property used and useful in furnishing service in such municipality should be valued for the purpose of establishing such rate.
>
> Hardin-Wyandott Lighting Co. v. Public Utility Com., 118 Oh. St. 592; 162 N. E. 262.

IV.

Among the uses to which appelalnt's property is dedicated is the use of it for furnishing electric service to the public unit existing in Martinsville. There is no constitutional principle forbidding the reduction of rates applicable only in this particular community unless a fair return is, or will be, earned on appellant's entire property,

as appellant contends for at page 32 of its brief. That contention begs the whole question of whether the particular rates in issue are reasonable, and it is completely answered by the following language of this court:

> But whether the carrier earned dividends or not sheds little light on the question as to whether the rate on a particular article is reasonable. For, if the carrier's total income enables it to declare a dividend, that would not justify an order requiring it to haul one class of goods for nothing, or for less than a reasonable rate. On the other hand, if the carrier earned no dividend, it would not have warranted an order fixing an unreasonably high rate on such article.
>
> Interstate Commerce Commission v. Union Pac. R. Co. (1911), 222 U. S. 541, 549.

V.

The calculations of earnings on the entire property, as appearing on page 33 of appellant's brief, are based only on what the accounts as kept by appellant show, and they do not fairly reflect the net earnings of appellant's entire property from all uses actually made of it. All operating expenses, maintenance, taxes, and annual depreciation charge relating to appellant's power system property are charged against only the revenues appellant collects, and the real earnings from the use of appellant's power system for affiliated system convenience are not included in those revenues. A disclosure of the earnings of Central Indiana Power Company as the real owner of the whole affiliated system and as the real recipient of all earnings from the

whole affiliated system operated as one system would come nearer showing the real truth about the earnings that are being made on the property that stands in appellant's name, but appellant made no such disclosure. But proof of failure of appellant's entire electrical properties to earn a fair return from all uses made of it would not supply the necessary basis upon which the reasonableness of the particular rates in issue must be tested. Appellant's failure to establish that necessary basis by facts proved constitutes a failure to sustain its bill.

Minnesota Rate Cases, 230 U. S. 352;
Smith v. Illinois Bell Tel. Co., 282 U. S. 133, 149.

VI.

Appellant's exhibits 21, 22 and 28 (R. 288-297, 299-305) offered to show that it was operating the Martinsville business at a deficit in 1928 under the old rates, and that under the new rates there would be a large deficit for the year ended May 31, 1930, do not prove that the new rates are in truth insufficient to yield a fair return on the fair value of the property employed in giving service to the public in Martinsville. All of these exhibits involve unfair treatment of the affiliated system use of appellant's power system property and they place unfair burdens on Martinsville consisting among other things of unfair expenses and charges for annual depreciation and return on power system property, also an unwarranted charge for rate case expenses and a too great charge for annual depreciation on the local property. The calculations are on the maximum figures in Spooner and Merrill's appraisals

instead of upon fair values. The defects in these exhibits will be further shown in Argument, post.

All of appellant's proofs put together fail to sustain its bill, but appellee's proofs show that the rates are, upon fair consideration, sufficiently compensatory.

Points on Proposition (B), supra; rates are compensatory.

I.

(a) The apportionment of power system value to Martinsville use rests expressly on considerations of the actual uses made of the power system, including the true character of the affiliated system use (court's findings 12, 13, R. 164-168), and is the fairest apportionment that could be made on the facts proved.

(b) The cost of power used in Martinsville at the rate of $.0133 per K. W. H. at the Martinsville substation, exclusive of charges for depreciation and return on power system, rests on appellant's accounts as an average cost at substations and upon the actual uses made of the power system property. It was used in the court's computations (R. 168) because no facts were proved from which in fairness a different than average power cost could be computed for power furnished at Martinsville. This average power cost is supported by appellant's witness, Sittinger (R. 227).

II.

The fair values found for Martinsville local and for power system properties rest on a thorough and careful consideration of all appraisals and testimony (Master's

findings (R. 82-103, 118), and are not open to just criticism. It must appear clearly on appeal that the values found below are incorrect.

United Gas Co. v. R. R. Com., 278 U. S. 300.

The asserted item for cost of financing was properly excluded on the testimony of appellant's vice-president, Schiez (R. 236).

New York Tel. Co. v. Prendergast, 36 Fed. (2d) 54, 64;

Galveston Elec. Co. v. Galveston, 258 U. S. 388, 397.

III.

No facts were proved from which a finding could be made either that appellant sought a greater rate case expense allowance from the Commission, or that the amount ordered is unreasonable upon the evidence before the Commission (Master's finding, R. 114-116). To assert a rate case expense of $60,000 against Martinsville revenues in the test of the reasonableness of the rates at issue is to suggest a practical method of defeating all attempts by a single municipality served by a large electric empire to provoke inquiries into electric rates charged it and its residents, and ought receive no more consideration than the court below gave it. A statute directed the Commission to exclude unnecessary or excessive expenditures in rate determinations.

Indiana Acts 1927, C. 146, p. 445 (Sec. 12722 Burns, Vol. 4, 1929 Supp.).

IV.

A composite charge of 4% on fair value is fair for annual depreciation (R. 168); and an annual rate of return of 7% on fair value is fair (R. 119, and 168). Appellant's witness, Spooner, supported a 7% rate of return exclusive of provision for accumulating a surplus (R. 207), but appellant had a surplus of $1,257,884.64 at Dec. 31, 1929, as against a surplus of $1,074,739.71 at Jan. 1 of that year (R. 313). What is here a reasonable rate of return depends on the facts in this case.

Smith v. Illinois Bell Tel. Co., 282 U. S. 133, 160, 161.

V.

The court's tests of the rates (Finding 15, R. 168, 169) on the rate base consisting of the fair value of the Martinsville local property with the apportioned part of the fair value of power system, is the most reliable test that can be made on the facts proved, and does not involve substantial errors (See also Master's findings R. 123-125).

Appellant's comparisons of computations at pages 92 and 93 of its brief are worthless. One reason is, the computations compared are not made on the same plan of test. In appellant's computation depreciation and return on power system are already included in power cost computed at $.022897 per K. W. H. (Ex. 28, R. 300), and appellant again includes a charge for depreciation on apportioned power system (appellant's brief, p. 93).

VI.

Under a "gateway" test, where power cost includes depreciation and return on power system, as employed in

appellant's exhibit 22 (R. 292-297), the rates are sufficiently compensatory if the test is made on facts fairly found. The Master's findings show this in tests made by him under this plan (R. 125-130). Moreover, power used at Martinsville could be computed at as high a gateway charge as $.02021 per K. W. H., and the rates would still yield a fair return of 7% on the fair value of the Martinsville local property (Master's finding XLII, R. 126).

VII.

The rates, if in force, would at all times since the effective date of the order have yielded a fair return of more than 7% per annum, on the fair value of appellant's property employed in rendering the service to which the rates apply (Court's findings 15, 16, R. 168, 169). Hence, the court's conclusions of law (R. 169, 170) to the effect that the evidence fails to show that the rates are confiscatory; that they are shown to be compensatory; and that the bill should be dismissed for want of equity, are right.

ARGUMENT.

A. The facts proved fail to show the rates are confiscatory at or since their effective date, and hence the bill is not sustained.

I.

(Answer to I, p. 32, Appellant's Brief)

The fair value of the property actually employed in rendering service to the public in the City of Martinsville is the rate base.

In testing the rates at issue the court below did not treat Martinsville as a self-contained rate area as though it were served only by means of property there located, and it did not treat appellant's Martinsville property as a segregated unit of property independent of its relation to other property of appellant. On the contrary, the court found that appellant's electrical property, of which that at Martinsville is a part, is devoted to numerous uses, including its use to the public in Martinsville.

The court found, and held, that the use of appellant's property wherever located for giving service to the public in Martinsville must be considered as a segregated use and the court separated from the whole that property, wherever located, which is actually employed in rendering service in that segregated use in order to find a fair rate base upon which to test the rates at issue and which rates are applicable only to the service rendered in that segregated use.

Under this plan of separation, the court found that the portion of appellant's entire property that is employed in giving service in Martinsville consists of the local distribution property in that city, together with a portion of the power system property located outside the city, and found also that appellant's local distribution properties located in other cities, towns and communities were not used or useful for furnishing service in Martinsville (Finding 8, R. 168).

This finding certainly speaks the truth, for appellant's own witness, Spooner, testified (R. 202) that "The distribution system and some local items in the power plant in Martinsville is used and useful only for giving service to the people in Martinsville," and (R. 205) that "The other property of local character outside of Martinsville is not used in bringing electricity to Martinsville."

The evidence is undisputed that the three small power plants, including the one at Martinsville, are not operated for the convenience of the cities in which they are located (Andrus, R. 182), nor even for appellant's own purposes, but for the convenience of the *affiliated* system (Andrus, R. 191). The "items in the power plant in Martinsville" mentioned by Spooner as belonging to local property were included by the Master in the local property (Finding XXI, R. 97), also by the court ($10,936 item, R. 163). The evidence is also undisputed that appellant's widespread transmission lines, etc., including the three small power plants, are used to serve not only Martinsville, but fifty widely scattered cities, towns and communities in appellant's own territory and, in conjunction with similar power systems of affiliated companies, it serves an even

greater number in other territories and the court so found (Finding 5, R. 159, 160, Finding 12, R. 164-167).

The court then found the fair value of appellant's property as employed in the service to the public in Martinsville to be $189,467.39 at Feb. 1, 1929, and $204,138.00 at May 1, 1930, and the rates in question were then tested on these values (R. 168, 169) and were found to be sufficiently compensatory for the service and property involved (R. 169). The matter of how these values were found, how expenses were separated, how power cost was computed, how operating revenues from the new rates were determined, and other factors entering into the tests of the rates made by the court will be discussed later in this argument.

Appellant denies the validity of the segregations, apportionments and tests made by the court by the argument that it has not consented to that kind of treatment of its property in that it has not dedicated its property to a segregated use at Martinsville, but that the dedication it has made is of the entire property as a single operating unit and that there is a "constitutional principle" which forbids reduction of its rates at Martinsville by public authority unless the earnings of the entire property after such reduction shall be sufficient to yield a fair return upon that property as a whole, and appellant then argues that the earnings on the whole did not make a fair return before reduction and, hence, that the reduction made necessarily results in confiscation of the whole property.

Appellees shall demonstrate that the whole argument and the conclusion resting on it are completely fallacious.

First, as to the authority of the Commission to investigate and fix the rates in question in a proceeding involving only those rates. It should be remembered that the jurisdiction of the Commission was invoked upon complaint by seventeen of appellant's customers resident in Martinsville and by the city for the purpose only of having the Commission investigate and fix reasonable rates to be charged in that city. No steps were taken by appellant, as respondent to that complaint, to have any other part, or all, of its rates chargeable elsewhere investigated with a view to their adjustment or change. Instead, appellant moved for more detailed specification of the rates complained of (R. 18), whereupon an amended petition was filed specifying that the electrical rates, tolls, charges, schedules, joint rate or rates of the respondent charged its consumers *in the City of Martinsville* are unreasonable and excessive, etc. (R. 19). The proceeding resulting in the rates at issue was on the amended petition and on a lengthy answer thereto (R. 19-24) which was in three paragraphs, in the third of which appellant sets up complexities which it says makes it "impossible to fix a specific cost to any community or district without considering it in its relation to all other districts, communities and persons served by said respondent throughout its said system" (R. 21), and permission is asked (R. 24) to make permanent, after further observation, a preliminary schedule which it had offered pending the proceeding and which it was permitted to put in effect (on July 1, 1927) pending the investigation under way (R. 17).

Incidentally, these July 1, 1927, preliminary rates did not produce less operating revenues than the old rates did.

For 1928 the preliminary rates produced an operating revenue at Martinsville in the sum of $94,990.13 (R. 161), and appellant's vice-president and auditor, Schiez, testified that "Plaintiff company considers the rate put in effect in Martinsville on July 1, 1927, a fair rate" (R. 235) and yet he admitted that his "Exhibit 21 shows a deficit in 1928 of $1,575.32 at Martinsville under that voluntary rate" (R. 235). In face of this purported deficit for 1928 under rates which the company considers fair, we are tempted to transpose from page 45 of appellant's brief, where it has no application, to this page where it does, the quotation there set out from an opinion of this court, viz.:

> Such a result indicates that there is something wrong in the process by which the conclusion is reached.

But to return to the subject of the Commission's authority to fix rates applicable only in Martinsville. That is a county seat city of about 5,000 inhabitants, in which, before appellant acquired the electric utility, electricity was supplied from a local plant (R. 157). Appellant is the only utility furnishing electric service in Martinsville, and it operates there under an *indeterminate permit* from the State of Indiana and under the terms and provisions of the Shively-Spencer Utility Commission Act of said State (R. 160). Sec. 57 of said act (12728, Vol. 3, Burns Ann. Ind. Stat. 1926) expressly provides that when a municipal organization or ten persons complain to the Commission against any public utility that rates in which they are directly interested are in any respect unreasonable, then "the Commission shall proceed, with or without

notice, to make such investigation as it may deem necessary or convenient," and, after formal public hearing, the Commission shall "by order fix just and reasonable rates, * * * to be imposed, observed and followed in the future in lieu of those found to be unjust, unreasonable," etc. (12743 ibid).

It is this act which authorized the indeterminate permit under which appellant's property is dedicated and operated at Martinsville for the convenience of the public, and not only is that indeterminate permit expressly made subject to the rights and authority provided for in section 57, supra, but by accepting it appellant had to consent to said provisions (12774, ibid.). Thus, the municipal unit in utility regulation was clearly preserved.

It therefore is apparent not only that the Commission had express statutory authority to investigate and fix rates to be charged in Martinsville, but also that the dedication of appellant's property is subject to that authority, for by the acceptance of its indeterminate permit to own and operate its property in that city appellant did as a matter of law consent to the fixing of rates applicable only in that municipality. And when appellant changed the mode of producing electricity for distribution in Martinsville by substituting for the local generating plant its transmission lines, etc., it did so subject, nevertheless, to the same authority in the Commission to fix rates for Martinsville as obtained when electricity was generated locally. Appellant could not escape that authority, or render the statute conferring it nugatory, by the mere fact that it now employs in part some different property differently located in rendering service in Martinsville.

The use made of whatever property that is employed for service in Martinsville in common for service elsewhere constitutes, nevertheless, a separable use under the very authority from which appellant's sole right to operate any of its property is derived and to which authority it has consented by its acceptance of its indeterminate permit to operate at Martinsville. The Supreme Court of Indiana has held that by the acceptance of an indeterminate permit under this act, a utility holds it subject to all the terms, conditions and limitations of the act, including "submission to the orders of the Public Service Commission in the matter of fixing rates."

Chicago, etc., R. Co. v. Guilfoyle, 198 Ind. 9, 16.

The Indiana act is patterned after that of Wisconsin, and the Supreme Court of that State held in a case even where the whole rate structure of a similar utility property was in review that under the Wisconsin act segregation of uses according to municipalities served had to be recognized and fair apportionments had to be made.

Eau Claire v. R. R. Com., 178 Wis. 207; 189 N. W. 476.

Appellant's criticism of the lower court's action and opinion, to the effect that it misconstrued the Indiana statute and placed its decision on grounds of public policy determined by a State legislature rather than upon considerations of the Federal constitution, is completely wrong. From what has already been said concerning the Indiana statute and appellant's assent to its provisions,

it clearly appears that the court below was right in treating the use of appellant's property as employed in serving Martinsville as a use that has to be segregated when rates to be charged in that city are to be determined or tested. Moreover, the statement in the court's opinion that if it is to be done otherwise the legislature must first so provide, is exactly right, for until the State, through its legislature, releases appellant from the terms and provisions in the present act to which appellant assented when it accepted the indeterminate permit, and until the legislature changes the mandate in section 57 to the Commission, it is wholly necessary to consider the segregated use in determining or testing rates for a single municipality. This is exactly the view taken in the Eau Claire case. After that case was decided, the legislature of Wisconsin amended the act of that State and authorized the Railroad Commission to consider two or more municipalities as a unit "if in its opinion the public interest so requires" (C. 390, Wisconsin Laws of 1929).

Moreover, it is certain from the facts proved and found that the use of appellant's property to give service in Martinsville is one of the uses which even appellant must admit is within the general dedication and uses of its electrical properties. It is also certain that there must be rates of some kind for the service rendered in this particular city, and certainly appellant's counsel must concede that the making of these rates is a legislative function of the State, which function must be exercised by the Commission either by way of approval of a schedule filed with it by appellant or else by way of fixing rates upon hearing and investigation. It is true that

Andrus, common president of appellant and of the other affiliated companies, testified that it was their position "that rate-making is the function of the management" (R. 185), but that does not supersede the statute. In no view can appellant be in stronger position to argue against considering particular rates for service in segregated uses than is a railroad or a vast telephone utility. It is firmly established that in the case of a vast telephone utility property there must be segregation of uses and apportionments to uses when particular rates are in question. Smith v. Illinois Bell Tel. Co., 282 U. S. 133; also in the case of railroads, Minnesota Rate Cases, 230 U. S. 352.

The many cases cited and quoted from in appellant's brief at pages 45-61 so patently fail to sustain its contentions against segregation of uses and against apportionments of property to uses that it is unnecessary to analyze them. The case relied on by appellant that comes nearest approaching the question under consideration is Michigan Bell Telephone Co. v. Odell, 45 Fed. (2d) 180, where the rate inquiry was company-wide and where it was held that Detroit could not be treated as a self-contained rate area. As already pointed out, Martinsville has not been treated as a self-contained rate area without regard to outside property employed in serving it. The Martinsville electric rates were not fixed in a company-wide rate inquiry as were the telephone rates to be charged in Detroit. The cited case does not hold that in the absence of a company-wide rate inquiry Detroit could not have rates only there chargeable inquired into. If it had so held, Smith v. Illinois Bell Tel. Co. would rule to the contrary. Again,

whatever might be said against segregation of uses according to municipalities served by a telephone utility cannot with equal force be said against such segregation of uses in case of an electric utility. An important distinction between the two services is obvious. Both the scope and the value of telephone service within any municipality are enhanced by facilities elsewhere making communication with the general public in other areas and municipalities possible. But electric lights may be just as bright and electric power may be just as potent if current is locally generated and distributed as if transmitted for local distribution from distant points of generation. In the latter method energy can be supplied at lower cost, but that method is not essential either to the quantity or quality of the energy demanded in Martinsville. But even in the telephone industry, segregation of uses and apportionments must be made when particular rates affecting even less than an entire single municipality are in question. Smith v. Illinois Bell Tel. Co.

It is clear from the reasons and authorities given that the lower court did not err in treating the use of appellant's property as employed in giving service in Martinsville as a segregated use and that it did not err in making apportionments of property to that use. And, as said in the similar case of Hardin-Wyandott Lighting Co. v. Public Utility Com. (Ohio), 162 N. E. 265, it is self-evident that for the purpose of finding the fair value of the property employed in giving service in one municipality it is not necessary to value the local properties in other municipalities. Appellant's witness Spooner supports this view. He said: "To obtain the amount of the

fair value of the property that would be used and useful in Martinsville the local property in the other towns and communities is not needed" (R. 203).

Appellant's contention that under the legislative direction to the Commission in section 12680 Burns 1926, where it is provided that the Commission shall value all property of every utility, it was necessary in this case to value appellant's entire property, including the local properties everywhere, is unsound. That section does not deal with the subject of rates. It expresses a general policy that the Commission should, after the effective date of the act, proceed to make valuations of all utility properties without reference to pending rate inquiries. There were several obvious reasons for that policy independent of what might be required in a particular rate inquiry. The provision in section 57, that when a rate inquiry is provoked the Commission "shall make such investigation as it may deem necessary or convenient" governs, and it was not necessary for the court below to value other local properties in order to find the proper rate base for Martinsville.

Second, as to the authority of the Commission to reduce rates at Martinsville unless thereafter the earnings from all sources made a fair return on the property as a whole. At page 32 of appellant's brief it is asserted that there is a "constitutional principle" which forbids the reduction by public authority of any rates in any part of the whole area where its property serves unless the earnings of the entire property after such reduction shall be sufficient to yield a fair return upon that property as a whole.

There is no such constitutional principle. The constitution protects utility property from confiscation as it is

in fact employed, and it must be proved that *as employed in the segregated use to which the particular rates apply* it is being confiscated before the rates will be interfered with. Minnesota Rate Cases; Smith v. Illinois Bell Tel. Co. Appellant's contention is completely answered by what this court held in sustaining an order of the Interstate Commerce Commission which reduced lumber rates to be charged by certain railroads. Interstate Commerce Commission v. Union Pac. R. R. Co. (1911), 222 U. S. 541, 549.

It is too obvious to require much argument that the rates to be charged at Martinsville must be tested on some more cogent and reliable basis than on a showing (defective at that) that a fair earning is not had on the entire electrical properties as a whole. Appellant's conclusion that the Martinsville rates are of necessity unreasonable and confiscatory by no means would follow from a mere showing of failure to earn a fair return upon the whole electrical properties. A single assumption will demonstrate the fallacy of the conclusion drawn. Suppose the existing Martinsville rates (which Schiez says the company considers to be fair) were twice as high as they are, and thus admittedly unreasonably high. On that assumption there would, in 1928, have been $94,990.13 more (R. 161) realized out of the Martinsville business. Add this amount to the $232,266.51 which appellant's Exhibit 21 (R. 288) represents as available for return in 1928 on its entire properties and the substituted figure would then be $327,256.64, making a return of 6.5+% instead of the 4.62% return show in Exhibit 21 (R. 288) and still a fair return (7%) would not be earned on the

fair value contended for by appellant for its entire properties. Yet if those were the facts, appellant's argument means that there is a "guiding constitutional principle" which would forbid considering Martinsville rates on their own merits on a fair basis and would forbid making a reduction in them.

But resort need not be had to assumption to demonstrate the fallacy of the conclusion drawn by appellant. Facts found by the court will supply the needed data. Andrus testified that a great many coal mines and gravel pits were served by appellant, and that more than 50% of the kilowatt hours sold to individual meter customers is furnished to such industries (R. 181). A material slump in that consumption had occurred (court's findings 5, R. 159, 160). This, of course, materially reduced earnings on the whole property. That shows one reason for the contended deficiency in general earnings, but it is not a good reason for preventing the fixing of Martinsville rates on a fair basis. Again, the exclusive use made of appellant's three small generating plants for *affiliated system* convenience (R. 159), and the free major use of its transmission lines to transmit energy from Indiana Electric Corporation's lines over a wide expanse of territory onto the lines of affiliated companies to the north (Findings 12, R. 164-167), without any substantial reciprocal use to appellant in the lines of those affiliated companies (bottom, R. 166), furnishes potent reasons why the accounts as kept by appellant fail to show a fair return on its entire electrical properties. Then, too, some of the rates charged in some other communities may be unreasonably low upon their respective merits. None of the

rates in force were fixed upon investigation and hearing and there never has been a company-wide rate investigation by the Commission (R. 192, 193). Such uniformity as there is in rates pertains to "lighting and large and medium power rates" (R. 192). Little energy to which power rates apply is used in Martinsville (R. 157). There are numerous reasons, some exhibited by the facts proved and found and others probable, which don't concern Martinsville rates but which may account for any deficiency in earnings upon the whole property.

It must not be understood that appellees concede that appellant's entire electrical properties are not in fact earning a fair return from all uses made of them in conjunction with the whole affiliated system. Central Indiana Power Company is the real owner of the entire affiliated system properties and is the real recipient of all net earnings therefrom under the common management and operation of it (R. 236). Whether from all uses made of appellant's property for the convenience of customers in its territory and in the territories of the affiliated companies a fair return is being earned for the real owner of the whole affiliated system is not shown by the facts proved. That fact would have more relevancy here than only what is shown by the accounts as kept by appellant. The failure of those accounts to show a true story of all net earnings made from all uses of the property which stands in appellant's name is obvious from a brief consideration of proved facts. All of the earning statements appearing in appellant's Exhibits 21, 22 and 28, as well as that in the Master's finding (R. 131) are predicated only on the facts shown in the accounts as kept by ap-

pellant. These accounts charge the whole operating and depreciation expense of appellant's power system against only the revenues which it collects, and they do not reflect all operating revenues inuring to the real owner through other affiliated subsidiaries which are in part derived from the employment of appellant's power system for affiliated system use and convenience.

But if it were assumed for argument that appellant's entire property is not earning a fair return on the whole use made of it, that would not be proof that the rates at issue are unreasonable and confiscatory of the property actually employed in rendering the service at Martinsville to which alone they apply. This is so, because that kind of proof furnishes no fair rate base representing the property actually employed, and it furnishes no apportionment of expenses to that service. Minnesota Rate Cases; Smith v. Illinois Bell Tel. Co. And upon those same authorities, it follows that in the absence of those essential facts there is a failure to sustain the bill.

By plaintiff's exhibit 21 it was sought to show that under existing rates, which the company considers fair, there is an operating deficit in Martinsville business; and in exhibits 22 and 28 it is sought to show that greater deficits would result under the new rates. None of these exhibits test the rates by the method used by the court. They employ the method of computing power used at a cost which compensates power system property. The calculations made in these exhibits will, in another connection, be shown to be unfair and unreliable, and to fall far short of constituting proof that the rates at issue are confiscatory.

B. The rates are shown at all times since their effective date to yield a fair return on the fair value of the property actually employed in giving service to the public in Martinsville.

II.

(Answer to II, p. 61, Appellant's Brief.)

The court made apportionments of (a) power system value, and (b) expenses, on an actual use basis.

Appellees agree that apportionment of power system must rest on the actual uses of that system. But the question of what those actual uses are is purely a *factual* question. The court made findings of what those actual uses are with express reference to apportionment (Findings 12, 13, R. 164-168, also Finding 5, R. 159-160), and then made an apportionment based upon the actual uses so found (R. 167, 188).

In obtaining the 3.3% which the court applied to power system value in order to obtain a fair share of that value that should enter into the Martinsville rate base, the court treated the energy transmitted over appellant's lines from affiliated lines onto other affiliated company lines, also the current manufactured by the three standby plants for exclusive affiliated system convenience at times of affiliated system peak demand, in the same category as the rest of the current constituting part of the affiliated system power pool flowing over appellant's lines and which was delivered at appellant's substations onto local distribution systems in appellant's territory. The figures from which the percentage of 3.3 is derived appear in the Master's find-

ings (R. 103-110). From those figures it appears that more than half of the current flowing over appellant's lines goes directly onto the lines of Attica Electric Company and Northern Indiana Power Company for distribution to cities, towns and communities in the territories where part of the affiliated system is owned by them.

Appellant contends that these quantities of energy that flow from appellant's lines onto the lines of these Northern companies should be eliminated from the calculations in arriving at a percentage for apportionment, and suggests that the percentage then should be 6.63 instead of 3.3 (p. 22 appellant's brief). This view of appellant proceeds on the unreal assumption of fact that appellant company is the independent owner of an independently managed property and that it has current to sell at wholesale and that it in act is wholesaling current to Attica Electric Company and Northern Indiana Power Company; that wholesale service may properly be classified as a class of service to which a separate rate may apply and that the rate which is charged the affiliated companies dare not be higher than it is, else they (as though they were independently owned and managed companies) would get their energy requirements from producers to the north of them, in which case appellant argues its power system property would fall entirely on its customers for support.

If the facts were as appellant's position assumes them to be there would, of course, have to be different treatment of the energy going from its lines onto those of the affiliated companies than the court gave it both in the matter of apportioning power system value to Martinsville use and in the matter of apportioning expenses, particularly

the expense of power cost at the Martinsville substation. But those are not the facts.

The reality is exactly the same as if appellant company, Attica Electric Company and Northern Indiana Power Company were merged into one company and all property now in the names of the three were owned by the remaining company and were operated as one property. In that view the treatment the court gave the whole use of appellant's power system is obviously the only fair treatment permitted under the proofs of this case. The retention of the several corporate entities of the affiliated companies and title to portions of the affiliated system in them is obviously nothing but an inconvenience and bookkeeping expense to the common management and common operation of the whole affiliated system as one property (R. 189), and that undoubtedly is one of the reasons for the petition by these affiliated companies to merge. This petition to merge was pending before the Commission at and after the rate inquiry, and inventories and appraisals pertaining to the merger proceedings were adapted to this rate case (R. 203, 243).

We recount briefly the facts which show the reality to be as stated: First, as to ownership and management. All of the capital stocks and securities of appellant company, Attica Electric Company, Northern Indiana Power Company, and of four other affiliated companies are owned by Central Indiana Power Company (R. 157 and 236); appellant's power system property was planned, constructed and is operated by the common management of said affiliated group for the use of the customers of the affiliated companies as well as for the use of appellant's customers,

and it is operated as a part of the affiliated system of properties for the benefit of the affiliated companies as well as for the benefit of appellant (R. 167); Andrus is the president (R. 183) and chief executive (R. 192) of all, and is responsible (R. 183) for the operation and power supply of each and all of the interconnected companies in the loop shown on Exhibit 1; the affiliated system, consisting of the units of these affiliated companies was conceived as a whole; appellant's lines were designed to coincide with a system comprised of the affiliated lines (R. 186); the properties of the affiliated companies are managed and operated as one property (R. 193); appellant's standby plants are operated for *affiliated system* convenience (R. 191) at times of maximum load on the system and not for the cities where they are located (R. 182). The capital investments made by appellant or any other of the affiliated companies are determined by the same management (R. 192).

Second, as to character of appellant utility. Appellant is a purely distributing company and has no power to sell or exchange (XXX, R. 111). The three standby plants operated for affiliated system convenience at peak times generated only a total of 77,946 K. W. H. during the whole year ended May 31, 1930, in a total annual affiliated system requirement of from 475,000,000 to 500,000,000 K. W. H.

Third, as to the nature of transaction under which current is delivered from appellant's lines to affiliated companies. There is annually twice as much current transmitted onto appellant's lines from Indiana Electric Corporation's lines as is required to satisfy appellant's cus-

tomers in its own territory. Most of the excess goes to affiliated companies to the north (R. 165). The complete figures for several years showing this are found by the Master (R. 103-107). These figures also show that no substantial amount of current comes onto appellant's lines from affiliated lines to the North, and the court found that there is no substantial or necessary use of their power property to appellant in reciprocation for the use made of appellant's power property.

These deliveries from plaintiff's lines to the Northern Companies are not as a result of purchases and sales. They are mere meter readings of current flowing in the common pool and passing the points where appellant's lines leave off and the others begin. Andrus testified as follows: "Current is metered as it leaves one company's property and goes to another. Those readings are washed out and the differential is settled for at one cent. It is a bookkeeping procedure. The one cent price is fixed by witness. There is no written contract in effect between the companies on interchange of current. The interchange goes right on. If the companies make a pull down on plaintiff, the current flows in. There is no order directing the flow of current, and no contract fixing the price of interchanged current" (R. 186); also, "Its lines are simply used as a conduit" (R. 187), and "Constructively, from an operating standpoint, the whole is one system, *but because of the existence of different companies it is necessary to have a figure for bookkeeping purposes*" (R. 189); "If Northern Indiana Power Company and the Dresser plant want to exchange electricity, they do it over plaintiff's transmission lines, and plaintiff gets nothing from either

of the companies for the use of its transmission lines" (R. 187); "The question of what should be charged by the Wabash Valley Electric Company (appellant) to other companies for electricity delivered to them over its lines has never been taken up with the Public Service Commission of Indiana for the purpose of having the rate fixed" (R. 187); "Plaintiff has been paying one cent per kilowatt hour for the current purchased by it since 1924. Until December 1, 1929, plaintiff received one and a quarter cents for current delivered to affiliated companies at the North end of its lines, but since December 1, 1929, it gets exactly the same rate it pays" (R. 188); Andrus "thinks a benefit to plaintiff could be computed to offset the reduction of the price of current delivered by it from one and a quarter cents to one cent if a specific set of conditions were named, but that he cannot name them" (R. 189).

Under the facts as shown by the foregoing recital it is manifest that in determining the actual use made of appellant's power system for affiliated system convenience the realities of the actual, and true nature of, the uses made of the power system to which appellant holds the legal title must be recognized *unobscured by the thin web of corporated fiction.* In reality the entire affiliated power system shown on Exhibit 1 is owned by a single owner (Central Indiana Power Co.), and is *actually* managed and operated as *one* property by *one* management (R. 193), but because of the existence of different companies "it is necessary to have a bookkeeping figure" (R. 189).

The facts recited show that appellant has no current to wholesale to affiliated companies and does in fact sell none to them. Its lines are simply used as conduits, and since

Dec. 1, 1929, the line and transformation losses incident to the use of appellant's lines for affiliated company convenience fall on appellant for current is credited to appellant at the points where it leaves its property at exactly the same 1-cent rate as it is charged for the current where it enters its property (R. 188). In figures this meant that in 1929 there had to come onto appellant's lines 36,560,905 K. W. H. in order to deliver the 35,340,952 K. W. H. that went to Attica Electric Company and to Northern Indiana Power Company (R. 296). Since Dec. 1, 1929, with the one cent charge in effect at both the receiving and delivering ends, appellant's loss for the quantity so handled would be $12,199.53, to say nothing of the loss in the necessary operating expenses, taxes, maintenance, and depreciation relating to the power system so employed. That kind of transaction, occurring solely under the dictates of the common management, can hardly be classed as a wholesaling by appellant of its own current. The same thing is arranged between Indiana Electric Corporation's (an affiliated company) Lenore substation, just south of Indianapolis, and another vast related property in Southern Indiana owned by Interstate Public Service Company. Recently, the 33 K. V. line (Ex. 1) from Lenore to Martinsville was taken down and a 66,000 volt line put in its place, and which now connects at the Martinsville substation with a 66,000 volt line of Interstate running from thence south into the stone districts at Bloomington and Bedford (R. 185), and the current may go either way (R. 209). Interstate's lines and plants are operated in common with the operation of the lines and plants of the affiliated companies (R. 185) Interstate Company and the

affiliated companies are Insull companies (R. 187, 188) and appellant's standby plants are used exclusively for affiliated system convenience.

To regard the use of appellant's power system for affiliated system convenience as a use for wholesaling current it owns for wholesaling purposes is contrary to all of the facts proved. That use is precisely the same use as is made of it for delivering current at substations within appellant's own territory and the whole use is to transmit energy in a common power pool which is in reality owned by a single owner and is actually distributed under a common management with a unified system for the common purpose of serving customers in the whole area in the affiliated system and for the purpose of yielding earnings, through the susidiaries, to Central Indiana Power Company as the real owner of the whole affiliated system.

There is only this difference between the employment of appellant's power system for delivering current at substations in appellant's territory and its employment for transmitting current delivered at substations in the territories immediately north of appellant's territory: to complete the deliveries at substations in those northern territories a further employment of the lines of those affiliated companies is required. But that does not change the soundness of the lower court's position, because to the extent that such further employment of other lines may be required to deliver this current emanating from Dresser to substations further removed from the source than are those in appellant's territory the cost of such additional employment of property should in fairness be borne by the customers served at those more distant substations

rather than by those in appellant's territory that are nearer to the source. In this connection we point out that there is no substantial reciprocal use in the lines of the Northern companies to appellant or its customers (finding 12, R. 166). Thus, during the year ended May 31, 1930, only 1,585,400 K. W. H. came onto appellant's lines (R. 231) from the northern lines as against a total of 35,340,952 K. W. H. going from appellant's lines onto them in the same period (R. 296). And for 1928 none is shown coming down from the north (R. 104). Moreover, what has come down was not needed for appellant's purposes, because in the year ended May 31, 1930, appellant could and did get from Indiana Electric Corporation to the south 84,778,437 K. W. H. (R. 105), of which only 41,032,962 K. W. H. were delivered in appellant's own territory (R. 107), and appellant can continue to get all the current it needs from the Dresser plant (R. 189).

Two arguments are advanced in appellant's behalf against treating the use of its power system for affiliated system convenience on a parity with its use to customers within its territory. These arguments are that appellant should bear the whole burden of its power system (a) because its properties are part and parcel of a vast system put together to justify the Dresser plant and in exchange for the affiliated system use made of its property it gets the benefit of a one cent rate from Indiana Electric Corporation, and (b) if the affiliated use is treated on a parity with the company use the result will be a prohibitive power cost to the northern affiliated companies. Neither of these arguments are valid, and they are not made out of any free will of appellant or in its own or in its cus-

tomers' interests. Indeed, appellant has no will of its own. It is the voice of Central Indiana Power Company, the company to whom Spooner and Merrill rendered their bill for services in this case (R. 203) that advances that argument. Any moral obligation on the part of appellant or of its customers blindly to support an infant industry in such measure as the common management of that industry may dictate has long since become extinguished, and the paternal assurance of general benefits in a great fraternity exceeding any charges being made is hardly enough to prevent searching inquiry for a reasonable basis on which to fix reasonable rates to be charged in Martinsville. The "infant" has become a giant. The affiliated properties which were assembled to justify the Dresser plant with its capacity to manufacture annually 300,000,000 K. W. H. now require from 475,000,000 to 500,000,000 K. W. H. annually (R. 158). Accordingly, a line has been built across the state (Ex. 1) to the plant of Columbia Power Company, with which a contract has been entered into for power at the low rate of 5.5 mills per K. W. H. if taken in large quantities. Not only that, but the same Insull interests that launched the affiliated system, have built just east of the Illinois state line at Hammond the State Line generating plant which is the largest plant built anywhere, and this affiliated system has been connected with that plant (R. 182). Even later than that, these same interests were building a large generating plant at Michigan City, and were connecting the affiliated system to it while the hearing below was in progress (R. 183). Besides, the affiliated system is connected with the large Twin Branch plant at South Bend, and with several other generating plants out-

side the affiliated system territory (R. 182-185). And still other plants are looking for markets for their excess power (R. 263). The enterprise in the electric industry has been such and the construction of large generating plants seeking outlets for power has developed so far that the argument made for appellant that present considerations should be governed by the conditions existing in the early stages of the affiliated system is without force or merit. Even under those conditions the position taken by appellant that the whole burden of the power system property that happens to be owned by appellant should be saddled on the customers in its territory would have been unfair.

There is no point to the contention that the affiliated companies to the north would cease taking power coming over appellant's lines if the affiliated use of appellant's power system would for the purpose of this case be treated on a parity with the company use. What is being done now is not to compute and fix a charge to be paid by the affiliated companies for that current, but it is to determine fairly the fact of what property is employed in rendering service to Martinsville and what its fair value is as a basis upon which to test the rates to be charged customers in Martinsville. It does not follow from the lower court's findings that current delivered to affiliated companies must indeed be charged to them and settled for by them at a higher rate than now. None of the affiliated companies have an independent will and none operate their properties independently. There is no bartering between them. There is actually only one management of all and really only one owner, and their several properties are interconnected and operated as a unit. In reality there is no

more occasion, for the purposes of this case, to consider what the rate is or should be at the boundary lines of the severally owned parcels of the whole affiliated system than there would be to consider what are or should be such rates at those points if the several corporate entities were wiped out. No matter what is done here as to Martinsville rates, the same flow of power will obviously occur throughout the affiliated system under the dictates of the common management as now occurs. And to the real owner that makes no difference. But if the effect of the lower court's findings were to increase the charge at these boundary lines, that would settle nothing here, for at all events a property built in part for outside uses cannot expect to be compensated on its whole value from only inside uses when the outside uses stop.

Appellant furnished no specific data or facts from which the court below could in fairness to Martinsville have treated the affiliated use of appellant's power system as a different use from that made of it within appellant's territory. The court's findings on this subject are bottomed on the realities shown by the facts proved, and cannot be overthrown by the unreal and general criticisms offered for appellant.

The percentage of 3.3 found by the court and applied to power system value to get the fair value of power system employed for Martinsville service expressly rests on the actual uses of the power system as found by the court (findings, 12, 13, R. 164-168). This percentage results from a consideration of the ratio of deliveries of current at the Martinsville substation for Martinsville use to total deliveries at all of appellant's substations, and of the ratio

of Martinsville peak demand to peak demand on appellant's entire system. Aside from appellant's objection, already noted, to the inclusion of total deliveries and of total system peak demand involving the whole use made of power system on the same basis, appellant also objects to the treatment of the intra-company use of power system on the basis of attributing to Martinsville a use that is average to all substations in appellant's territory. While there was general testimony to the effect that there is a difference in the cost of rendering service from power system at different substations due to difference in load factors (R. 188), no data as to varying load factors was furnished from which a different than average use could be computed for Martinsville. Moreover, in the computation made in appellant's exhibit 22 (R. 300) where its auditor figured out a "gateway" rate applied to Martinsville (R. 293) and which rate included depreciation and return on power system, appellant itself treated all gateways, including Martinsville, as average. And its witness, Sittinger, testified that:

> I should think that within the Wabash Valley property the same gateway price to all the gateways of the different towns and to each and all of the power customers, like coal mines and gravel pits, would be equitable (R. 227).

Under the state of the proof the court could not treat power system use for Martinsville on any basis other than on an average basis, and appellant's general criticism can be of no avail in the absence of specific facts proved from which a more accurate determination of such use could be made.

We find no objection in appellant's brief to the apportionments of expenses of operation either as to power system or as to Martinsville, and no such objection could well be made, for the apportionments used are those which appear in appellant's own accounts as kept by it.

Appellant objects to the use of $.0133 per K. W. H. as the actual power cost at Martinsville on the ground that it is an average cost. Here again appellant wholly failed to prove any specific facts from which a different than average cost could be computed. This cost does not include depreciation and return on power system, but is the average K. W. H. cost of all energy delivered by appellant in 1929 as carried on appellant's own books (R. 127), and we again call attention here to the testimony of Sittinger hereinbefore quoted. It is true that this rate for power cost includes the deliveries to affiliated companies in the same way as they were included in determining power system use for Martinsville, but what we have said in favor of such inclusion and against exclusion in that connection applies here with the same force. Appellant's criticism of the use of this average rate of cost for power is invalid in the absence of proven data from which a different cost could fairly be computed. The cases cited at page 67 of appellant's brief in which certain averaging methods were used to support findings of cost to haul particular articles of freight very obviously fail to support appellant's objection to the use of an average K. W. H. power cost in this case.

The Commission had found the old rates charged by appellant to be excessive (R. 47) and fixed the new rates at issue. The burden was on appellant to prove facts in

support of its charge of confiscation. It failed to prove data upon which more accurate findings could fairly be made as to property employed or as to cost of power used in rendering service at Martinsville, and its contentions now that the findings made on those points are not as accurate as they should be are out of order.

III.

(Answering III, p. 76, appellant's brief.)

Fair Value Found.

The fair values found by the court for the Martinsville local property and for power system property include all items properly entering into such valuations. They rest on a fair consideration of all of the appraisals and testimony thereon. At pages 31-35, this brief, the facts are set out showing the considerations on which these findings of value are based. These values are not open to just criticism. Certainly, appellant's brief does not from clear and convincing proof show them to be incorrect, and hence they must stand. United Gas Co. v. Public Service Com., 278 U. S. 300.

In view of the fact that appellant's capital was, and is, furnished by Central Indiana Power Company (R. 236) there was no error in excluding from the values found the item for cost of financing. New York Tel. Co. v. Prendergast, 36 Fed. (2d) 54, 64; Galveston Elec. Co. v. Galveston, 258 U. S. 388.

Appellant's objection to value found goes to the Master's finding (R. 130, 131) of value for the entire property. For argument, it might be conceded that the value of the

entire property is as high as appellant contends and nothing material would thereby be conceded in this case. Such a value could only serve as a basis upon which to find total earnings on the entire property, and we have already shown that whatever the total earnings may be, the inquiry still remains whether the earnings from the particular rates at issue are sufficient to fairly compensate that property which is actually employed in rendering the service to which the particular rates apply. But appellees believe that so far as the fair value of the entire property is at all to be considered it should be considered as found by the Master. As reasons for this see pages 46-47, this brief.

IV.

(Answering IV, p. 82, appellant's brief.)

Rate Case Expenses.

The Commission allowed a total of $4,000 for rate case expenses, to be amortized against Martinsville revenues at the rate of not more than $400 per annum. There is no proof that appellant sought greater allowance from the Commission or that evidence of any greater expenditure than that was presented to the Commission. Appellant simply proved in this case that it has incurred and charged to the date of the hearing below a total of more than $60,000 of expenses for engineering, auditing and attorney services, etc. There is no charge in the complaint that the $4,000 allowance by the Commission is unreasonable. No one has sought to prevent appellant from expending any moneys it may wish to expend. But

appellant has failed to furnish data or facts from which a finding could be made either as to the necessity or value of expenses incurred, and the Master so found (R. 114-115). On the contrary, it is clear that much of the expense incurred relates to unnecessary appraisals of fifty local distribution systems, and all appraisals of the power system property have value apart from their use in this case. There is no proof showing that the whole charge should be made against only Martinsville. By Acts 1927, p. 495, the Commission was directed to exclude unnecessary or excessive expenses from consideration in determining and fixing the rates. The presumption is that its order allowing $4,000 is reasonable, and appellant has not proven it otherwise.

Moreover, a $60,000 rate case expense against Martinsville alone is an impossible thought. That would mean that this small community would be penalized at the rate of over $6,000 a year for ten years for having dared to provoke an inquiry into the reasonableness of the rates charged there. There could be no more practical way to prevent rate regulation than to allow such a charge as that in a test of the reasonableness of the rates fixed. We are certain that the court below took the right view in confirming the item of rate case expense as allowed by the Commission. The cases cited by appellant at pages 85 and 86 do not sustain its impossible position of wanting these rates tested by including in Martinsville annual operating expenses a tenth part of more than $60,000, as its exhibit 22 does (R. 293).

V.

(Answering V, p. 87, Appellant's Brief.)

Rate of Return.

What is a fair rate of return in this case depends on the relevant facts proved. Smith v. Illinois Bell Tel. Co. The Commission had found a return of 7% adequate. The only testimony in the record on rate of return was by the engineers on both sides—appellant's engineers being of the opinion that 8% was required, and appellees' being of the opinion that 7% was sufficient. The court found 7% to be fair. This finding is supported not only by the testimony of appellees' witnesses but also by that of appellant's engineer Spooner coupled with other proved facts. Spooner testified that:

> To take care of the return on bonds, debt discounts, borrowed money and stock dividends, it is necessary to have a rate return of 7%. In order to accumulate a surplus, and make it easier to finance the Company, the rate of return should be not less than 8%.

The facts show appellant had an accumulated surplus of $1,257,884.64 on December 31, 1929, against a surplus of $1,074,739.71 on January 1st of that year (R. 313), and that it is financed by Central Indiana Power Company (R. 236).

VI.

(Answering VI, p. 90, appellant's brief).

Rates Sufficient to Yield Fair Return.

The tests made by the court of the new rates show they would have yielded a fair return of more than 10%

for the year ended May 31, 1930, on the May 1, 1930, fair value of the property employed, and a return of 11% for the year 1929 on the same value, and that on the February 1, 1929, fair value they would have yielded an even greater than a 11% return (R. 168, 169). The finding (R. 161) on operating revenues the new rates would yield is not challenged.

The comparisons made at page 93 of appellant's brief between its own and the court's computations is worthless for the reason that appellant confused its own method with that of the court. The court computed power cost at a rate which covered all costs except depreciation and return on power system but which items were computed on the power system value apportioned to Martinsville (R. 168, also R. 123-125). But in appellant's computation (p. 92) power is computed at a rate which includes depreciation and return on power system (R. 300), and appellant's $11,516.60 figure for annual depreciation again includes a 4% charge on its apportionment of power system to Martinsville.

By exhibit 22 appellant sought to show that the new rates would produce an operating deficit of $10,621.89 (R. 293) for the year ended May 31, 1930. That would be serious if true, but it isn't.

In the first place, the power cost is computed at a K. W. H. charge of $.024163. This charge is computed (R. 294) by charging against revenues collected only from appellant's own customers all power system expenses, taxes, and 4% for annual depreciation and 8% for return (instead of 7%) on the Spooner and Merrill appraisal (R. 294). That appraisal is $3,637,650 (R. 294)

against the fair value of $3,066,395 (R. 164). The current delivered to affiliated companies is taken out at the former 1¼ cent rate that had been fixed by Andrus up to December 1, 1929 (R. 294). Such a computation for power cost at Martinsville at the rate of $.024163 per K. W. H. is obviously unfair. An interesting fact in this connection is that in that same year a comparable quantity to a comparable city (Tipton) was sold at $.0162 per K. W. H. (R. 320) by Northern Indiana Power Company out of the power pool replenished from appellant's lines. Next, a 4% charge for depreciation is computed on the Spooner and Merrill appraisal of depreciable local property ($113,376, R. 294, 293) which appraisal is higher than the fair value of that depreciable property as found by the court ($84,589, R. 163). And included in appellant's computation as a Martinsville operating expenses is the sum of $6,235.98 "annual amortization charge for this rate case expense" (R. 293) instead of $400 as fixed by the Commission. The charge included by appellant for rate case expense would itself make a 7% return on nearly $90,000.

In its exhibit 28 appellant came down a notch by attempting to allocate part of the Clinton-Lafayette line, over which most of the current goes to the northern affiliated companies, out of its power system, and then followed the plan of exhibit 22. The Martinsville deficit thus computed by appellant is $7,420.80 under the new rates (R. 240). In exhibit 28 annual depreciation and 8% return are again computed on appraisals as in the case of exhibit 22, and the $6,255.98 rate case expense item is also included.

The attempted allocation of the Clinton-Lafayette line to affiliated system use does not allocate out the whole affiliated system use of appellant's power system property. It leaves in the three standby plants which are operated exclusively for affiliated system use The mere physical elements of these standby plants are valued at $309,388 by the court and are included in the power system value (R. 163). It leaves in also all of the 66,000 volt line built from Lenore to Martinsville to contact there with Interstate's 66,000 volt line. Moreover, the whole of appellant's power system was constructed with reference to the whole affiliated power system. Exhibit 28 is not reliable under these circumstances, and the Master so found (R. 113).

The Master computed a fair gateway rate of $.018 per K. W. H., which includes depreciation and return on the fair value of power system property as found by the court, and he then computed power cost at Martinsville at the gateway rate so found in tests made by him of the new rates on the basis of the fair value found by the court for the Martinsville property. The new rates so tested show a yield of more than 7% on the fair value of the Martinsville local property for both periods to which the court's tests apply (R. 125-130).

Moreover, the Master found (R. 126) that if provision is made first for all Martinsville operating expenses, except power cost, 4% annual depreciation and 7% return on the fair value of the Martinsville local property, there would remain out of the 1929 operating revenues which the new rates would have yielded the sum of $51,305.72 available for power cost so that the power could

be charged at a gateway rate of $.02021 per K. W. H. Such a gateway charge is close to the one computed in Exhibit 28 and which is based even on an 8% return on Spooner and Merrill's appraisal figure (R. 300).

VII.

(Answer to VIII, p. 96, appellant's brief).

Rates Compensatory Since Effective Date.

It follows from what has been said that appellant has failed to sustain its bill. On the contrary, it appears, as found by the court (Finding 16, R. 169), that the rates at issue have at all times since their effective date been sufficient to earn a fair return on the fair value of the property employed in rendering service to the public in Martinsville.

The judgment of the district court should be affirmed.

Respectfully submitted,

JAMES M. OGDEN,
Attorney General of Indiana,
GEORGE HUFSMITH,
Assistant Attorney General of Indiana,
Solicitors for Appellees, Except City of Martinsville.
ARTHUR L. GILLIOM, of Indianapolis,
RALPH K. LOWDER, of Martinsville,
Solicitors for Appellee, City of Martinsville.

APPENDIX.

Statutes Cited.

Sec. 57 of Shively-Spencer Utility Commission Act, is set out in Court's finding 6, pp. 12, 13, this brief.

> ... The Commission shall determine, and by order fix, just and reasonable rates ... to be imposed, observed and followed in the future in lieu of those found to be unjust, unreasonable....

Vol. 3, Sec. 12742, Burns' Ann. Ind. Stat. 1926.

> Every license, permit or franchise hereafter granted to any public utility shall have the effect of an indeterminate permit, subject to the provisions of this act, and subject to the provision..., that the municipality in which the major part of its property is situated may purchase the property of such public utility actually used and useful for the convenience of the public... If this act should be repealed * * * such utility shall be reinstated in the possession and enjoyment of the license, permit or franchise surrendered by such utility at the time of the issuance of the indeterminate franchise, permit, or grant.

Sec. 12773, ibid.

> Any public utility operating under an existing license, permit or franchise, shall upon filing,... a written declaration, legally executed, that it surrenders such license, permit or franchise, receive by operation of law in lieu thereof, an indeter-

minate permit * * * and such public utility shall hold such permit under all the terms, conditions and limitations of said act...

Sec. 12774, ibid.

...such item or items (of expenses)...as the Commission may deem unnecessary or excessive, shall not be taken into consideration in determining and fixing the rates which such utility is permitted to charge for the service which it renders.

Vol. 4, Sec. 12722, Burns' Ann. Ind. Stat. 1929, Supp.

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IN THE

Supreme Court of the United States

OCTOBER TERM, A. D. 1932.

No. 128

WABASH VALLEY ELECTRIC COMPANY,
Appellant,

vs.

RALPH M. YOUNG,
(SUBSTITUTED FOR FRANK T. SINGLETON) ET ALS.,
Appellees.

PETITION OF THE APPELLANT FOR A REHEARING.

GEORGE A. COOKE,
FRANCIS L. DAILY,
JOHN C. LAWYER,
HOWARD S. YOUNG,
Counsel for Appellant.

R. S. ANDERSON,
Of Counsel.

THE GUNTHORP-WARREN PRINTING COMPANY, 310 WEST JACKSON, CHICAGO

minate permit * * * and such public utility shall hold such permit under all the terms, conditions and limitations of said act...

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PETITION OF THE APPELLANT FOR A REHEARING.

Comes now the above named appellant, Wabash Valley Electric Company, and presents this, its petition for a rehearing of the above entitled cause, and, in support thereof, respectfully shows:

I.

THE COURT HAS OVERLOOKED THE CONTROLLING EFFECT OF THE CASES CITED ON PAGES 48-56 OF OUR BRIEF AND ON PAGE 7 OF OUR REPLY BRIEF WITH RESPECT TO THE AMOUNT OF PROPERTY CONSTITUTING THE RATE BASE.

The court appears to have measured the scope of the constitutional question in this case not by reference to the issue made by appellant's bill, that its property as a

whole was being taken, but by what it conceived to have been the scope of the legislative proceeding before the commission. Actually the record clearly shows that even before the commission appellant insisted upon protection for its property as a whole (R. 20-24), and the commission in its order recognized this fact (R. 29-32). In any event, whatever freedom the commission may have had to fix rate differentials as between various geographical areas in appellant's territory, it had no constitutional power to force any part of appellant's rates still lower when the earnings of the property as a whole were already non-compensatory. It was this issue which was made by the bill. Every previous decision of this court bearing upon the question supports appellant's contention that a utility property as a whole, where the property is a physically integrated and interconnected one, is the rate base for the company which owns such property; and that as the company cannot on the one hand complain because its rates as applied to a portion of such property are unprofitable provided its property as a whole shows a fair return, so on the other hand it can justly complain if at a time when its rates as applied to its property as a whole are already unprofitable, certain of such rates are further reduced without its consent on the sole theory that such reduced rates will be profitable as applied to a certain portion of the property. The numerous cases cited in appellant's original brief and reply brief fully justify this deduction as to the state of the law. The earlier decisions of the court appear to be of controlling effect. It can only be concluded that the application of the decisions has been overlooked. We ask the court again to consider the numerous authorities cited in our previous briefs on this subject.

II.

THE LANGUAGE OF THE OPINION IS INCONSISTENT WITH RESPECT TO THE AMOUNT OF PROPERTY WHICH MAY BE REGARDED AS USED AND USEFUL IN A RATE CASE.

The court in its opinion says:

> "Normally, the unit for rate making purposes, we may assume, would be the entire interconnected operating property of a utility used and useful for the convenience of the public in the territory served, without regard to particular groups of consumers or local subdivisions."

This statement, with which we thoroughly agree, by necessary inference includes the proposition that where an interconnected operating property covers a number of local subdivisions, *i. e.*, cities and towns, each part of the interconnected property is used and useful for the convenience of the public in the entire group of cities or towns. Yet the opinion contains three subsequent statements which seem to us inconsistent with this principle. It says:

> "In addition to what already has been said, it should be noted that appellant not only furnishes electric current to the fifty separate and unrelated towns and cities, *in none of which the plant is used or useful for the rendition of service to any other town or city,*" *etc.* * * *
>
> "To meet this objection it is only necessary that there shall be brought into the rate base the value of all property of appellant which is in fact used and useful for supplying the electric current to the city. *Manifestly, the local plants in other towns and cities bear no such relation to the Martinsville plant.*" * * *
>
> "There is also evidence that the appraisal cov-

ered the local property in the other municipalties, *which, as we have seen, are without relation to the Martinsville distribution.*" * * *

This language is likely to be construed as announcing as a matter of law that a utility property located within one city is never used or useful for the rendition of service in another, even though it is part of an interconnected system extending over several cities; and it is likely to be argued, upon the authority of these statements, that such an interconnected property can for that reason never be taken as a rate base for the fixing of rates in the territory as a whole. It is, of course, a physical fact that the wire which leads into a house located in one city is not employed to carry electricity into a house in another city. But it is equally true that the wire which leads into the house of one consumer is not utilized in carrying energy into his neighbor's house next door, in the same city. No one would deny that both wires in the instance last cited are used and useful parts of the single system which serves the city. It follows equally that where the interconnected system of a company serves a number of cities the wires in one city are as much used and useful in serving another city in the system as the wires in one city block are used and useful with respect to the inhabitants of another block in the same city. The political subdivisions defined as cities are of no more significance in the problem than the political wards of a single city, where the same interconnected property is lawfully serving both.

Not only are the three statements last above quoted inconsistent with the general rule previously announced in the opinion, but no one of them is necessary to the decision. The opinion would be clarified and the possibility of mischievous consequences avoided if the language in question were eliminated. If this is not done

the language should at least, we submit, be so modified as to eliminate the possibility of an interpretation that that part of an interconnected utility property located in one municipality cannot, as a matter of law, be considered as used and useful in serving another municipality which is on the same system.

III.

IN INTERPRETING THE INDIANA UTILITIES ACT BY REFERENCE TO THE DECISION IN EAU CLAIRE v. WISCONSIN LIGHT AND POWER COMPANY, 178 WIS. 207, THE COURT HAS MISAPPREHENDED THE STATE OF THE LAW IN WISCONSIN ON THIS SUBJECT.

The court has treated the language of the supreme court of Wisconsin in the *Eau Claire* case as if it were applicable to a confiscation case. The language must, however, be read in the light of the question which was before the court. (*Weaver* v. *Palmer Bros. Co.*, 270 U. S. 402, 414; *Sinclair* v. *U. S.*, 279 U. S. 749, 767.)

What that question was clearly appears from the court's statement in the *Eau Claire* case:

> "But in this connection there is no contention that the rates fixed yield an unreasonable return to the utility. The complaint is that the return to, or income of, the utility resulting from the rate fixed by the order under review is unlawfully and unreasonably distributed among the municipalities constituting the so-called 'Loop System'."

The question thus was one of discrimination as among the municipalities, and it was with reference to this that the Wisconsin court used the language quoted by this court in its opinion. The facts as disclosed by the opinion in the *Eau Claire* case indicate that the case was a hard one as applied to the appealing municipali-

ties, with the usual result that bad law was made—law so bad as to evoke a vigorous dissent from two members of the court, followed by a subsequent repudiation of the majority opinion by the legislature. But the court in the *Eau Claire* case gave no intimation that it was deciding that the commission, by whatever device, could use its privilege of setting up rate differentials between municipalities in such manner as to accomplish confiscation of the property as a whole. On the contrary, it recognized in the *Eau Claire* case that its earlier decision in *Milwaukee Electric Light and Railway Co.* v. *Railroad Commission,* 171 Wis. 297, was still applicable where the question of confiscation was involved. That case turned directly upon the question whether a rate fixed by the commission for a street railway system serving Milwaukee and its suburbs, which was adequate as applied to the system as a whole, but inadequate as applied to the suburbs, could be sustained. It was held that:

> "* * * the true test is not the effect of the order upon a single line or upon a part of the system, but upon the whole system."

This case has recently been cited and its doctrine reaffirmed in *City of Milwaukee* v. *Railroad Commission,* 206 Wis. 339, involving a similar issue. The result of the Wisconsin authorities is that when discrimination between municipalities is the issue it is proper to consider the cost of the service as related to the several municipalities involved in an interconnected system, but that when confiscation is the issue, the entire operating system is the proper rate base.

The court has quite overlooked, moreover, the fact that the local historical matter relied upon by the Wisconsin court in the *Eau Claire* case as a basis for its opinion (as referred to by this court in the present opin-

ion) has no relevance as applied to the Indiana statute. The Wisconsin law was passed in 1907 (Wisconsin Laws, 1907, Ch. 499). The Indiana law was passed in 1913. (Indiana Acts, 1913, p. 167.) The historical data given in the appendix to appellant's reply brief (pp. 54-55) plainly show that whatever may have been the state of development of public utility systems in Wisconsin in 1907, interconnected systems serving several communities had become common in Indiana by 1913 when the utility act of that state was passed, and that matters local to Wisconsin in 1907 could not have been in the minds of the Indiana legislators.

If appellant's constitutional right to protection of its property from confiscation is to be influenced by the meaning of the Indiana statute, that meaning should be ascertained by reference to the language of the statute itself, and not upon the authority of the *Eau Claire* case. We respectfully suggest that the court has overlooked the entire absence of anything in the Indiana statute justifying the conclusion that the city was intended to be the rate making unit, and we refer the court to the argument in our briefs upon the subject.

IV.

APPELLANT'S CONSTITUTIONAL RIGHTS CAN NOT BE AFFECTED BY THE TERMS OF THE STATE STATUTE.

The court notes the fact that if appellant's system were all located in Martinsville, the rate based would of course be the property in Martinsville alone. It points out that that condition, which once obtained, has been modified to the extent that Martinsville has now become merged into a larger property in which energy for many communities, including Martinsville, is drawn at wholesale from a common source. It then defines the question

as whether in view of the latter fact the city may still be treated as a separate unit for rate-making purposes, and states that the answer primarily depends upon the meaning of the Indiana statute. We are impressed with the thought that the court has been led to this conclusion by the fact that in our original brief we pointed out provisions of the Indiana statute from which it could be concluded that the property of a utility is intended to be dealt with as a whole and not piecemeal. Those observations, however, were offered merely by way of answer to the construction of the statute contended for by appellees, and by no means as a concession that the constitutional question could be determined by reference to the meaning of the statute.

It must be clear that it is wholly immaterial in the solution of the constitutional question in this court whether or not the commission proceeded lawfully under the state statute. The only question is whether or not its action resulted in confiscation of the property. This court would of course not set aside an order of the commission, however erroneous under the state law, if no confiscation was practiced. Conversely, though the commission may have proceeded ever so rightly under the forms of the state law, its action could not be upheld if it constituted a violation of the constitution. It is not clear from the opinion whether the court considered that the adoption of the city as the rate making unit was justified under the constitution because it represented a correct procedure under the state statute. If this be the real meaning of the opinion, we must protest that the court has permitted appellant's constitutional rights to be limited by referring to local forms of procedure. If, on the other hand, the court was led into its discussion of the proper meaning of the state statute by our reply to appellee's extensive argument upon that point, then we respectfully suggest that a mutual error

has occurred which can be properly corrected only by the omission of all reference to the meaning of the state statute.

A study of the opinion indicates that after satisfying itself that the terms of the state statute were not transgressed, the court proceeded to examine the constitutional question, and that it decided that question upon a consideration of the difficulty created by the intermingling of appellant's business with that of the affiliated utilities. If, as appears, this was the ground of the decision, we respectfully urge that the opinion be clearly rested upon that ground alone.

For the foregoing reasons it is respectfully urged that this petition for a rehearing be granted, and that the decree of the district court be, upon further consideration, reversed.

Respectfully submitted,

GEORGE A. COOKE,
FRANCIS L. DAILY,
JOHN C. LAWYER,
HOWARD S. YOUNG,
Counsel for Appellant.

R. S. ANDERSON,
Of Counsel.

CERTIFICATE OF COUNSEL.

We, Francis L. Daily and John C. Lawyer, counsel for the above named appellant, Wabash Valley Electric Company, do hereby certify that the foregoing petition for a rehearing of this cause is presented in good faith and not for delay.

FRANCIS L. DAILY,
JOHN C. LAWYER,
Counsel for Appellant.

SUPREME COURT OF THE UNITED STATES.

No. 128.—October Term, 1932.

Wabash Valley Electric Company, Appellant, *vs.* Ralph M. Young, John W. McCardle, Howell Ellis, et al., etc.	Appeal from the District Court of the United States for the Southern District of Indiana.

[January 9, 1933.]

Mr. Justice Sutherland delivered the opinion of the Court.

Appellant is one of seven affiliated public utility corporations organized under the laws of Indiana, more than 99 per cent. of the combined capital stock and securities of which is owned by the Central Indiana Power Company. The officers and directors of the several corporations are the same, and the operations of the entire group are under a common control, so that in substance the business of all is carried on as though they constituted a single entity. Their lines are interconnected, and the electrical energy distributed by them is drawn from common sources. Appellant owns and operates an interconnected system in a territory comprising thirteen counties of the state, and sells and distributes electric current to approximately fifty cities and towns therein, including the inhabitants of the City of Martinsville, and also to a large number of industrial plants and customers outside the limits of such cities and towns. Appellant's system consists in the main of general transmission and transformation properties, and local distributing plants. Among other local plants it owns one in the City of Martinsville, which was built by former owners to supply that city and its inhabitants. In the hands of the original owners this was a separate and complete plant, generating electrical energy as well as distributing it.

Nearly all the electric current distributed by appellant is "purchased" by it from one of the other affiliated corporations which has had in operation since 1924 an extensive and modern generating plant known as the "Dresser Plant." The combined needs

of the affiliated corporations have so increased that for the year ending May 31, 1930, the total current used greatly exceeded that supplied by the Dresser Plant; and in order to meet the increased demand the affiliated system was connected with other large generating plants in Indiana and Ohio. In furtherance of the general plans of the affiliated group, appellant some years ago purchased the local electric plant at Martinsville and similar plants in many other cities and towns within the thirteen counties above referred to.

The Martinsville plant now is operated by appellant under an indeterminate permit from the state in virtue of the provisions of the state Public Utility Act. 3 Burns Ann. Ind. Stat., 1926, § 12672, *et seq.* The current is fed into this plant from outside sources, principally from the Dresser Plant. Section 57 of the Public Utility Act (*supra*, § 12728) authorizes, among others, any municipal organization or any ten persons directly interested to make complaint to the Public Service Commission challenging any rates, tolls, etc., as unreasonable or unjustly discriminatory. Under that provision, on March 16, 1927, seventeen citizens of Martinsville, patrons of appellant, filed with the Public Service Commission of Indiana a petition seeking a reduction in electric rates, in which petition the City of Martinsville subsequently joined. At that time, and prior thereto, appellant had on file with the commission a schedule of rates applicable only in that city. After hearings, the commission made an order, effective as of February 1, 1929, reducing the rates for electric service to be charged and collected by appellant in Martinsville.

Appellant, being dissatisfied with these rates and asserting that they were confiscatory, brought suit in the federal district court for the southern district of Indiana to enjoin the commission and others from enforcing the order. The City of Martinsville intervened and filed an answer in support of the rates. The court issued a temporary injunction and referred the case to a special master to hear and report the evidence to the court, together with his findings of fact and conclusions of law. The master heard the case and made a report of the evidence and of his findings of fact and conclusions thereon, to which appellant filed a large number of exceptions. The district court, consisting of three judges (§ 266 of the Judicial Code, U. S. C., Title 28, § 380), approved the

report of the master and also made findings of fact and conclusions of law in accordance with Equity Rule 70½, and, thereupon, delivered an opinion and entered a decree dissolving the temporary injunction, directing appellant to refund to its customers all amounts collected from them in excess of those which it would have collected under the schedule of rates complained of, and dismissing the bill for want of equity. 1 F. Supp. 106.

Rate base. The court below held that under the provisions of the state statute and in the light of the facts, not the entire property and system of appellant, but the City of Martinsville alone should be treated as the unit for the purpose of determining the schedule of rates to be charged therein. The commission, as well as the master, had reached the same conclusion. Upon that basis, in fixing the value of the property used and useful for supplying electric current to the city, the court determined the value of the local property, to which it added that proportionate part of the value of the system property which it found to be fairly attributable to the Martinsville service.

Appellant's chief contention is that its entire operating property should be taken as a unit in fixing the rate base, and that the action of the court in failing to do so deprived it of its property without due process of law.

The Martinsville plant, prior to its acquisition by appellant, had produced within itself the whole of the electric current which its owners sold and distributed. That it then was a distinct unit for the purpose of fixing rates, if and when necessary, is, of course, clear. If the former owners had simply abandoned the use of the local generating appliances and purchased electric current from outside sources, the plant, for all purposes of rate making and regulation, would have remained a distinct and separate unit. It was this unit which appellant acquired; and if appellant had continued to operate it as it then was being operated, that is to say, as a generating, as well as a distributing, plant for the entire electric current supplied to the city, the value of the plant with appropriate allowances for expenses, etc., would have continued to be the lawful rate base. But that method of operation was abandoned; and the question is whether, because the local plant now is interconnected with appellant's general distributing system and the electric current is drawn from outside sources, the city still may be treated as a separate unit for rate making purposes.

The answer primarily depends upon the meaning and application of the state Public Utility Act. The Supreme Court of Indiana thus far has not dealt with the question; but the Supreme Court of Wisconsin, construing an act of that state essentially the same as the Indiana act, has determined that the Wisconsin commission was "required to treat the municipality as a unit and to base its rate upon the cost to the utility of serving the individual municipality rather than the average cost of serving many distinct and scattered municipalities." *Eau Claire* v. *Wisconsin-Minnesota L. & P. Co.*, 178 Wis. 207, 220. This result was deduced by the Wisconsin court (pp. 217 et seq.) not from any express provision of the statute, but from a consideration of many correlated statutory provisions and in the light of "the history of commercial, economic, and political development." That court pointed out that when the Public Utility Act was enacted, each municipality was charged with the duty of furnishing public utility service and endowed with power to perform that duty; that each municipality had, and dealt with, an individual public utility; that there was no great development of power by a single utility serving numerous municipalities scattered far and wide; and, hence, that present day developments could not have been within the contemplation of the legislature because they did not exist. The court stressed the fact that, notwithstanding the subsequent large developments of power which had come about since the passage of the utility law, there had been no modification of that law, which, in the light of conditions then existing, must have "regarded the municipality as the entity on the one hand and the utility as the entity on the other, for the purpose of establishing just and reasonable rates and service." Upon these considerations and others, the court reached the conclusion above stated.

Since the Indiana act was patterned after the Wisconsin act with a like history and attended by similar circumstances, the court below felt warranted in following the decision of the Wisconsin court; and with that view we see no reason to disagree. Whether the method afforded by the state statute thus construed is in accordance with sound policy is a question with which we are not concerned. See *Wabash, &c., Railway Co.* v. *Illinois*, 118 U. S. 557, 577; *The Minnesota Rate Cases*, 230 U. S. 352, 416. The only question we are called upon to consider is whether, under the due

process clause of the Fourteenth Amendment, the method is constitutional.

Normally, the unit for rate making purposes, we may assume, would be the entire interconnected operating property of a utility used and useful for the convenience of the public in the territory served, without regard to particular groups of consumers or local subdivisions. But conditions may be such as to require or permit the fixing of a smaller unit. Compare *United Gas Co.* v. *R. R. Comm'n*, 278 U. S. 300; *United Gas Co.* v. *Pub. Serv. Comm'n, id.*, 322; *The Minnesota Rate Cases, supra,* at pp. 434-436; *Smith* v. *Illinois Bell Tel. Co.*, 282 U. S. 133, 148, *et seq.*; *Houston* v. *Southwestern Tel. Co.*, 259 U. S. 318, 322.

The three cases last cited recognize that where the business of a carrier or utility is both interstate and intrastate, the state rates for intrastate transportation or business must be determined by a separate consideration of the value of the property employed in the intrastate business. It is true that there such a separation is made necessary because a different government exercises the rate making power in each of the two fields of regulation; and that situation is wanting here. Nevertheless, the cases furnish a helpful illustration in support of the application of a similar rule in the case now under review. Compare *United Fuel Gas Co.* v. *Railroad Commission*, 13 F. (2d) 510, 522; *United Fuel Gas Co.* v. *Public Service Commission*, 14 F. (2d) 209, 223; *Idaho Power Co.* v. *Thompson*, 19 F. (2d) 547, 571; and see *International Ry. Co.* v. *Prendergast*, 1 F. Supp. 623, 626.

In addition to what already has been said, it should be noted that appellant not only furnishes electric current to the fifty separate and unrelated towns and cities, in none of which the plant is used or useful for the rendition of service to any other town or city, but appellant also carries over its lines and delivers to others of the affiliated companies, as intercorporate transactions, varying portions of the entire current borne by its lines for subsequent distribution by the affiliated companies to their customers, including many towns and cities within their respective territories. This intermingling of the business and distributing activities of the several companies results in such elements of uncertainty in respect of the proper evaluation of appellant's participation therein that, standing alone, it would go far in the direction of justifying the rejection of the contention that the due process clause requires

that appellant's entire distributing system should be included in the basic unit. In the light of all the facts and circumstances, we hold that an adjustment of rates for the municipality here served by appellant in accordance with the method adopted below is consonant with state law and immune from constitutional attack.

Valuation and Expense Allowances. Appellant further contends that, assuming this method to be free from constitutional objection, the valuation put upon the property is so low as to result in confiscation. To meet this objection it is only necessary that there shall be brought into the rate base the value of all property of appellant which is in fact used and useful for supplying the electric current to the city. Manifestly, the local plants in other towns and cities bear no such relation to the Martinsville plant. As already shown, these various plants are separate and distinct from one another, and they were properly left out of the calculation. See *Lighting Co.* v. *P. U. Comm.*, 118 Ohio St. 592, 601. The property values fixed by the commission and those fixed by the master and approved by the court differ to some degree, but not so materially as to affect the result. Upon the basis adopted, that is, first to value the local property and then add that proportionate part of the value of the general distributing system found to be fairly attributable to the Martinsville service, the figures finally arrived at by the master and the court were $102,947 for the local plant, and $101,191 for the proportionate value of the other property, or a total of $204,138. In arriving at the second figure a proportionate part of the total value of the general system was allocated to Martinsville "on the basis of the ratio of actual sales of Kw. H. to Martinsville and its consumers to the total sales of Kw. H. by plaintiff during the year 1929, that being the last calendar year before the date of the hearing." This ratio was arrived at and supported by a variety of calculations, the results differing slightly, and upon these various calculations the court fixed 3.3 per cent. as the fair ratio of the value to be allocated to Martinsville.

We deem it unnecessary to repeat the details which led to the court's conclusion. The findings of the court and of the master are full and convincing and give evidence of careful and thorough consideration. The deductions from the evidence and the calculations are of necessity more or less approximate (*Utah Power & L. Co.* v. *Pfost*, 286 U. S. 165, 190), but we find nothing in the record which casts a substantial doubt upon their essential fairness.

Complaint is made that in determining the value of the Martinsville property no allowance was made for cost of financing. As the court below, however, pointed out, there was no evidence that such cost was incurred, or that it necessarily would be incurred in the event of reconstruction. This is also in accordance with the findings of the master. We see no reason to interfere. See *Vincinnes Water Supply Co.* v. *Public Service Commission*, 34 F. (2d) 5, 9.

The commission, the master, and the court below all rejected as exorbitant the claim of appellant for an allowance of $60,000 rate case expenses, and allowed the sum of $4,000, to be amortized as an operating charge over a period of ten years. This action, it is contended, was arbitrary and without basis in the evidence. While there is evidence in the record that appellant expended the amount claimed, there is further evidence justifying the conclusion that a large part of the expenditure was made for the additional purpose of securing data relating to a merger proceeding with which the Martinsville rates are in no way connected. There is also evidence that the appraisal covered the local property in the other municipalities, which, as we have seen, are without relation to the Martinsville distribution. From a consideration of all the evidence it seems clear that the refusal to allow, as against the Martinsville plant, the entire $60,000 was well founded. That being so, it became necessary to fix that part of the sum reasonably chargeable as an expense of the Martinsville rate case. The commission and the master, who heard the evidence and were familiar with all the details, reached the same conclusion as to the amount. While it may be true that even upon the view taken a larger sum than $4,000 might well have been allowed, we find nothing sufficiently definite in the record to require us so to determine, or to call for a disturbance of the amount fixed.

Rate of Return. The court below found that a rate of return of 7 per cent. was adequate. The evidence is conflicting. Witnesses for appellees estimated that 7 per cent. was sufficient. The testimony for appellant was to the effect that to take care of bonds, debt discounts, borrowed money and stock dividends a return of 7 per cent. was sufficient; but that in order to accumulate a surplus and make it easier to finance the company, the rate of return should be not less than 8 per cent. Appellant's balance sheets show that on January 1, 1929, it had an accumulated surplus of $1,074,739.71, and, at the end of that year, a surplus of $1,257,884.64, as compared with a total stock and funded debt liability

of about $4,500,000. The record, as already stated, also shows that appellant is a subsidiary of the Central Indiana Power Company by which it is owned and financed, its securities having been taken directly by that company without any intervening agency. The power company also owns and finances the other affiliated corporations in the same way. It is reasonable to conclude that appellant is in a more favorable financial condition than if it were a disconnected enterprise.

It is true, as appellant points out, that in *United Railways* v. *West*, 280 U. S. 234, 251-252, this court held that a rate of return for a street railway of less than 7.44 per cent. was confiscatory, saying that sound business management required that after paying all expenses of operation, etc., "there should still remain something to be passed to the surplus account;" and that a rate of return which did not admit of that being done was not sufficient to enable a utility to maintain its credit and raise money for the proper discharge of its public duties. Many cases were cited tending to show that a return of 7½ per cent. or even 8 per cent. might be necessary, but it was said (pp. 249-250) that no rule could be laid down which would apply uniformly to all sorts of utilities. "What may be a fair return for one may be inadequate for another, depending upon circumstances, locality and risk." A street railway company, compelled to meet the growing competition of private automobiles, public omnibuses, and other motor carriers, well might sustain such losses of revenue because of the decreased number of passengers carried, as to require a larger rate of return than would be required by an electric utility company like appellant, which not only enjoys a practical monopoly in the field where its services are rendered, but whose financial structure, it fairly may be assumed, is greatly strengthened by its affiliations and by the interested support of the parent company to which it belongs. On the whole we are unable to conclude that a 7 per cent. rate of return, under the facts here disclosed, is so low as to be confiscatory. See *Smith* v. *Illinois Bell Tel. Co.*, *supra*, at pp. 160-161.

Moreover it appears, as the master and the lower court found, that if the rates complained of had been in force during the period beginning January 1, 1929, and ending May 31, 1930, the return would have been much in excess of 7 per cent. on the value fixed.

Decree affirmed.